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February, 1950

EDISON ELECTRIC INSTITUTE BULLETIN

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UBLISHED MONTHLY BY EDISON ELECTRIC INSTITUTE

ELECTRICAL RESEARCH STATISTICS
THE ELECTRIC LIGHT AND POWER INDUSTRY

Current Statistical Data Covering 100 Per Cent of Industry

November, 1948-1949

SOURCE AND DISPOSAL OF ENERGY—MONTH OF NOVEMBER

	1949	1948	%
GENERATION* (Net)			
By Fuel Burning Plants	17,467,019,000	17,586,802,000	− 0.7
By Water Power Plants	6,861,226,000	6,593,594,000	+ 4.1
Total Generation	**24,328,245,000**	**24,180,396,000**	**+ 0.6**
Add—Net Imports Over International Boundaries	31,600,000	59,900,000	−47.2
Less—Company Use	120,947,000	119,607,000	+ 1.1
Less—Energy Used by Producer	197,696,000	308,440,000	−35.9
Net Energy for Distribution	**24,041,202,000**	**23,812,249,000**	**+ 1.0**
Losses and Unaccounted for	3,350,897,000	3,134,634,000	+ 6.9
Sales to Ultimate Customers	**20,690,305,000**	**20,677,615,000**	**+ 0.1**

CLASSIFICATION OF SALES

NUMBER OF CUSTOMERS—As of November 30th			
Residential or Domestic	35,237,750	33,400,960	+ 5.5
Rural (Distinct Rural Rates)	1,794,146	1,684,469	+ 6.5
Commercial or Industrial:			
Small Light and Power	5,282,154	5,126,134	+ 3.0
Large Light and Power	231,595	205,467	+12.7
Other Customers	147,486	140,915	+ 4.7
Total Ultimate Customers	**42,693,131**	**40,557,945**	**+ 5.3**
KILOWATTHOUR SALES—During Month of November			
Residential or Domestic	5,031,216,000	4,495,004,000	+11.9
Rural (Distinct Rural Rates)	541,485,000	487,031,000	+11.2
Commercial or Industrial:			
Small Light and Power	3,890,648,000	3,650,921,000	+ 6.6
Large Light and Power	9,834,578,000	10,673,159,000	− 7.9
Street and Highway Lighting	271,989,000	251,148,000	+ 8.3
Other Public Authorities	572,218,000	540,481,000	+ 5.9
Railways and Railroads:			
Street and Interurban Railways	303,859,000	325,057,000	− 6.5
Electrified Steam Railroads	194,929,000	207,050,000	− 5.9
Interdepartmental	49,383,000	47,764,000	+ 3.4
Total to Ultimate Customers	**20,690,305,000**	**20,677,615,000**	**+ 0.1**
Revenue from Ultimate Customers	**$391,078,300**	**$375,038,200**	**+ 4.3**

RESIDENTIAL OR DOMESTIC SERVICE

AVERAGE CUSTOMER DATA—For 12 months ended November 30th			
Kilowatthours per Customer	1,672	1,551	+ 7.8
Average Annual Bill	$49.49	$46.69	+ 6.0
Revenue per Kilowatthour	2.96¢	3.01¢	− 1.7

(*) By Courtesy of the Federal Power Commission.

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EDISON ELECTRIC INSTITUTE BULLETIN

Volume 18 FEBRUARY, 1950 No. 2

The Electrical Metermen's Handbook

An Outstanding Example of Contributions to the Common Good of the Electric Industry Through Committee Activity

THE new edition of the Electrical Metermen's Handbook, to be published before the end of April, will be the sixth in the Handbook's 38-year history. Ever since its first publication in 1912, the Handbook has been the standard work in its field, and an outstanding example of the contributions to the common good of the electric industry and the people it serves, made possible by the pooling of talents and energy of NELA and EEI Committees.

The Industry in 1912

Counting from the opening of the Pearl Street Station, the electric industry was 30 years old in 1912 and the National Electric Light Association, predecessor of EEI was 27. The early pioneering had been accomplished and the industry was over the threshold of a period of development, expansion and customer acceptance of its service that was still in full momentum. In 1912 there were nearly 4,000,000 customers of the electric industry, a tremendous gain over the half-million of ten years before; the generating capacity of the country was 7 million kilowatts and the year's output was 11½ billion kilowatthours. In that year, for each kw of installed capacity 2300 kwhr were generated; in 1949 the ratio was 1 kw to 5820 kwhr. The industry was ready for a work like the nature of the Handbook, and when the first printing of 1000 copies of the first edition was offered to members of the National Electrical Light Association on June 10, 1912, at its Annual Convention held that year at Seattle, Washington, it was absorbed by the industry immediately. A second printing of 1500 quickly followed and by October this had gone the way of the first, and the Executive Committee of the Association authorized a third printing of 2500 of this edition.

Almost immediately upon its appearance, general acclaim began to pour in from members of the industry and to appear in various electrical trade publications. The NELA BULLETIN, deciding to run significant excerpts from these reviews, found it necessary to run the feature over two issues. In September, 1912, the BULLETIN quoted the *Electrical Journal* as saying, "The National Electric Light Association is to be congratulated on having brought to a successful culmination the work of compiling and publishing the immense amount of data contained in the new handbook." The critic for the *Electrical Review* called it "probably the most comprehensive treatise on this subject that has ever been printed," while the *Engineering News* pointed out that the Handbook was not ". . . only another of the numerous disseminators of 'practical' information for workingmen. Even the most casual examination dissipates any such incomplete impression."

The next month's issue of the BULLETIN carried praise from other journals including *Popular Electricity* and the *Electrical World*.

The BULLETIN Comments

In November, 1912, the NELA BULLETIN said in regard to the demand for the Metermen's Handbook:

"One of the greatest publishing successes of the National Electric Light Association, as well as one of the most useful contributions to electro-technical literature in recent years, has been the *Electrical Meterman's Handbook,* which was compiled by the Meter Committee of 1911-12, and issued as one of the special features of the Seattle Convention, where it made, as might have been expected, an instantaneous success.

"This handsome book . . . is of value and use to all engaged in the production, distribution and sale, by measurement, of electrical energy, and its universal adoption is eloquent testimony of the appreciation extended to it in the central-station field. We have quoted in these pages already a number of expert and editorial opinions as to its merit, and need hardly emphasize therefore its desirability to any who may not have a copy.

Note to 1500+ Inquirers About the Metermen's Handbook

Copies of a new, revised, and enlarged edition of the Metermen's Handbook will be available by Apr. 30, barring entirely unforeseeable and unexpected delay. The final proofs have been approved and actual printing is scheduled to begin February 20. Approximately 600 hours of make-ready and running (press time) is required for the printing alone of this edition. Binding will require 3 to 4 additional weeks.

Information, including prices and ordering instructions on the Handbook will be mailed to member companies and to all who inquired about or ordered copies while the 5th edition was out of print.

"Incidentally," the BULLETIN continued, "in view of the approach of the Christmas and holiday season, when gifts are not unknown, it may be well to point out that there is available a special soft leather, gilt edge, de luxe edition at $5 which anyone might have thrust upon him without being offended, even though the cover has the name of the recipient stamped on it in gold. Some men might like to take this home and show it to the wife casually."

The pride of the Association was, of course, quite justified, but the idea of the Handbook did not originate in 1912. This is borne out in the preface to the first edition in which O. J. Bushnell, of Commonwealth Edison Co., Chicago, chairman of the Committee on Meters, gives credit for the inception of the Handbook to George Ross Green, of Philadelphia Electric Co., chairman of the Committee in 1909.

Meter Report of 1909

That year Mr. Green and his Committee presented to the NELA Convention at Atlantic City an extensive report on meters, their installation and maintenance. Mr. Green, in the introduction to the report, modestly stated that "Your Committee feels that this report is in the nature of a foundation, and leaves to subsequent Committees the erection of a superstructure of more comprehensive and exact information."

Actually, the contents and arrangement of material in this report of some 300 pages was so well prepared it provided both the foundation and a considerable framework around which all editions of the Handbook have been constructed.

In the discussion at Atlantic City, the work of the Meter Committee received high praise from a number of delegates. A Mr. Cowles said, "The report . . . speaks for itself. It represents an immense amount of labor and contains a volume of information that should be of very great value to the actual operating men." Mr. Caryl D. Haskins of Schenectady, N. Y., said, "This is the first time the world has ever had a textbook on meters, and it is a very good one. I feel that the electric meter has come into its own at last."

The Meter Committees of the next two years followed the lead of the 1909 Committee, and in their annual reports somewhat amplified and expanded the 1909 report.

But it was not until 1912 that the Committee under Chairman Bushnell decided to publish a handbook for general sale and distribution to the industry. The Executive Committee authorized the necessary expenditure, and in February, 1912, the BULLETIN was able to report that ". . . the final preparation of the matter for publication of the Handbook is in the hands of the secretary of the Committee, F. A. Vaughn, of Milwaukee, who is now busily engaged on this work."

How It Was Done

In commenting on the effort made to present the Handbook at the Convention, the 1912 *Convention Daily,* contributed by the *Electrical World,* then as now, a Convention feature, said: ". . . the work of editing the material and putting it in shape was so great that Mr. Vaughn took a staff of assistants to his residence and there spent practically a month without interruption preparing the copy for the printer. Literary composition began April 1, and when the matter was ready for the printer, Chairman O. J. Bushnell and Secretary Vaughn went personally to New York City and worked continuously for more than two weeks while the first edition was being set up for publication. One of the largest printing concerns in New York City placed practically its entire facilities at the disposal of the Committee and worked night and day in getting out the first edition . . ."

Then, said the NELA BULLETIN, "this most ambitious of the efforts of the Association in the line of publishing," was shipped to Seattle, ". . . where its unheralded appearance caused a veritable sensation."

The First Revision

The next three years, however, saw many advances in metering design and practice, and early in 1915, the Meter Committee and the Association decided that revision of the first edition would be desirable. Plans were accordingly made to present the first revision of the Handbook at the Convention to be held in San Francisco in June, 1915.

This revision, like all subsequent ones, was thorough. Reporting on the work in May, 1915, C. G. Durfee, of Rochester Gas & Electric Corp., then the Rochester Railway & Light Co., Chairman of the Meter Committee, said, "When the work was started, we thought that it would consist merely of . . . the addition of possibly 75 or 100 pages of new ma ter to cover such new meters and i struments as the manufacturers h developed during the past three yea The revision, however, developed in a work of such proportions as to ma it necessary for the Committee to p aside nearly all other work and to co centrate its efforts on this one matte if the revised edition was to be ava able for the coming Convention."

For the second edition, a printing 2500 copies was ordered. There are records available on the sale of the se ond edition, but it seems safe to assu that it was as successful as its pred cessor, since it was necessary to bri out a new edition two years later.

The third, or 1917 edition was p pared by the Meter Committee und Chairman C. H. Ingalls, of the Edis Electric Illuminating Co. of Bosto now Boston Edison Co., and featur a 165 page addendum containi changes in meter design, installation a practice, as well as information on n instruments that had been develop during the two years since the appe ance of the second edition. This a dendum was placed at the end of t text of the second edition and a printi of 5000 copies was made.

The Fourth Edition

By 1923, when the Meter Commit brought out a fourth edition, it w found desirable to establish a spec subcommittee on Handbook Revisi of which Burleigh Currier of the Phil delphia Electric Company was chairma

In this edition, much of the mater appearing in the earlier editions w condensed, obsolete data and descri tions were omitted, and new materi added. The principal innovation in co tent made in the fourth edition w that of assigning separate sections f each meter manufacturer. The practi in the earlier editions had been to tre all manufacturers in one section. Us of the new Sixth Edition will be ab to see just how these sections we treated in the fourth edition, since t present Editing Committee is includi as an appendix facsimile reproductio of parts of these sections dealing wi earlier types of meters not treated i the new work.

It was in this edition that the ti was changed from "Electrical Mete man's Handbook" to "Handbook f Electrical Metermen." The original ti was restored in the fifth edition w the exception that the plural 'Mete

men' introduced in 1923 was retained.

The fourth edition went through three printings, the first numbering 10,000 copies. A second printing of 3300 was run off in 1925, and a third of 3000 in 1926.

The fifth edition of 15,000 copies was published by the EEI in 1940, and prepared by the Metermen's Handbook Revision Committee, with O. K. Colenan of American Gas and Electric Service Corp. serving as Chairman, and the Editing Committee with A. J. Allan of Consolidated Edison Company of New York, Inc., as chairman.

The format of the Handbook which had remained consistent through the first four editions, was changed, and the 1940 edition was a much larger book, measuring approximately 8 by 10 inches. It was felt by the Committee that this would give the Handbook greater readability, by permitting the use of larger illustrations and type.

Reception of the fifth edition of the Handbook continued the tradition established by the earlier ones, and the demand proved to be so great, 12,000 copies were sold within six months. By the beginning of 1943, practically the entire edition had been exhausted.

Conditions of the war and immediate postwar period made it impractical to bring out a new edition, but as early as possible plans were underway for a new edition of the Handbook.

This new edition was to reflect the changes in metering design and practice brought about during the war and the industry's postwar expansion program. However, the work of revision and preparation of new material by the Handbook Revision Committee proved so extensive, that it was not until the fall of 1949 that completed sections of the manuscript could be turned over to the printer. By the end of January, 1950, the Editing Committee of the Handbook Revision Committee under Chairman R. B. Swallow of Public Service Electric & Gas Company, had corrected the final page proofs. The initial printing of the sixth edition of the Handbook will be the largest in the book's history—25,000 copies. The book will measure approximately 6 by 9 inches. This format was adopted to take advantage both of the greater readability of the large size of the fifth edition and more of the handling convenience of the "pocket size" of the earlier editions.

Backlog of 1500 Orders

Demand for the new Handbook has been building up ever since the fifth edition was exhausted. A backlog of more than fifteen hundred orders, for varying numbers of copies, received over the past ten years, provide a substantial commentary on its continuing usefulness, and the wide acceptance the Handbook has achieved. In addition to all sections of the U. S., orders came from such widely scattered points as Tsingtao, China; the island of Guam; Singapore; Sydney, Australia; Port Elizabeth, South Africa; Sao Paulo, Brazil; London and Rotterdam and several Chinese cities.

The Handbook's fame has not been confined to the electric industry. Orders have come in from automobile and airplane manufacturers, shipyards, chemical concerns and the U. S. Navy.

Revision of the new edition, which contains much new material was undertaken by the authorities in the metering field constituting the members of the Revision Committee, listed below.

Serving not only on the Revision Committee, but also acting as the Editing Committee for the sixth edition were Messrs. Morey, Morris, Robertson and Yanda.

Mr. Swallow served as chairman of both the Revision Committee and the Editing Committee.

The production of the Metermen's Handbook is a first-rate example of the sensing and response to a definite need, and the thoroughness, practicability and reliability of a work prepared through the meeting of minds of many practical men who are authorities in their field.

Indeed, contributions to the progress and efficiency of the electric industry of a kind possible only through the joint cooperative work of its Committees is the primary and continuing reason for the existence of the Edison Electric Institute and its predecessor, the NELA. To a Committee member, in the words of Ernest Acker, past president of the Institute, "'committee' means hard work—honest sweat—frequent meetings—trips away from home—after-hours study—time borrowed from their regular jobs. It means long hours spent on projects which may not be completed for years. . . .

"Yet," he continued, "fortunately for the electric industry and for the American public, there have always been men and women willing to shoulder this extra burden . . . willing to work for companies whose payrolls will never list

(*Continued on page* 59)

Electrical Metermen's Handbook Revision Committee

W. A. Brown, Rochester Gas and Electric Company, Rochester, N. Y.
A. B. Craig, Boston Edison Company, Boston, Mass.
J. E. Davis, Commonwealth Services, Inc., Jackson, Mich.
Marion Grady, Indianapolis Power & Light Company, Indianapolis, Ind.
J. B. Hicks, Carolina Power and Light Company, Raleigh, N. C.
C. G. Hollar, Mississippi Power and Light Company, Jackson, Miss.
H. A. Howery, Kansas City Power & Light Company, Kansas City, Mo.
J. L. Hughes, Pacific Gas and Electric Company, San Francisco, Calif.
L. M. Johnson, New England Public Service Company, Boston, Mass.
W. Jordan, Consolidated Edison Company of New York, Inc., N. Y.
W. G. Knickerbocker, The Detroit Edison Company, Detroit, Mich.
L. Lineback, The Cincinnati Gas and Electric Company, Cincinnati, Ohio.
O. V. Morey, Consolidated Edison Company of New York, Inc., N. Y.
A. Morris, American Gas and Electric Company, New York, N. Y.
B. Phillips, Niagara Mohawk Power Corp., Buffalo, N. Y.
T. C. Pitzer, West Penn Power Company, Pittsburgh, Pa.
F. A. Redding, Southern California Edison Company, Alhambra, Calif.
F. L. Rick, Jersey Central Power and Light Company, Asbury Park, N. J.
LeRoy Roberts, Staten Island Edison Corp., Staten Island, N. Y.
G. B. M. Robertson, Philadelphia Electric Company, Philadelphia, Pa.
F. H. Rogers, Consolidated Gas, Electric Light & Power Company of Baltimore, Baltimore, Md.
John Schwartz, Columbus and Southern Ohio Electric Company, Columbus, Ohio.
B. Z. Segall, New Orleans Public Service Inc., New Orleans, La.
H. F. Spreen, Texas Electric Service Company, Fort Worth, Tex.
C. P. Stahl, Wisconsin Power and Light Company, Madison, Wis.
R. B. Swallow, Public Service Electric and Gas Company, Newark, N. J., *Chairman.*
W. L. Wadsworth, Northern States Power Company, Minneapolis, Minn.
E. H. Walton, United Illuminating Company, Bridgeport, Conn.
C. F. Whiteman, The Cleveland Electric Illuminating Company, Cleveland, Ohio.
G. J. Yanda, The Cleveland Electric Illuminating Company, Cleveland, Ohio.

Samuel Ferguson

SAMUEL FERGUSON, chairman of the board of The Hartford Electric Light Company and the Connecticut Power Company, died suddenly on Feb. 10, 1950, at Mountain Lake Club, Fla., where he had been vacationing. He was 75 years of age.

Mr. Ferguson was long recognized as one of the outstanding figures in the electric industry. He served for 11 years as a director and trustee of the EEI and was always active in Institute affairs. A member of the American Institute of Electrical Engineering, Mr. Ferguson was also president of the AEIC for the years 1925-26.

Born in Exeter, N. H., Mr. Ferguson graduated from Trinity College in 1896 as member of Phi Beta Kappa and with honors in chemistry, mathematics and physics. In 1899 he received a degree in engineering from the Columbia School of Mines, and in the same year was awarded an MA degree from the Columbia Graduate School. In recognition of his high scholastic work at Columbia, he was awarded an honorary "Ad Eundum" MA degree by Trinity in 1900, and in 1936 Rensselaer Polytechnic Institute awarded him the honorary degree of Doctor of Engineering.

50 Years' Service to Electric Industry

Mr. Ferguson began his career in the electric industry in 1900 at General Electric in Schenectady, N. Y., where he served for a time as assistant to Dr. C. P. Steinmetz, GE's famous consulting engineer. By 1912 he had risen to position of engineer for the company's research laboratory, when he was chosen to be vice president of The Hartford Electric Light Co. He was named president in 1924. In 1933 he became chairman of the board of the Connecticut Power Co. which had earlier become affiliated with Hartford Electric, and in 1935 he also became chairman of the board of the latter company.

Samuel Ferguson's 50 years of service to the electric industry were marked by leadership in many phases of electric company operations. He made contributions to the scientific, economic and marketing phases of the business. These activities earned him national recognition, both in and out of the industry.

In the engineering field, under his leadership, Hartford Electric was the

MR. FERGUSON

first to use aluminum power lines in the U. S. and, a few years later, the first mercury boiler.

His opinions on matters of public policy frequently were sought, and his papers and addresses, collected and published in 1947 have occupied an important place in the advancement of the electric art. In discussing these papers, C. W. Kellogg, former president of EEI, called them "the 'Five-Foot-Shelf' of the utility industry, in that a careful reading and absorption of the contents of all the papers would give a liberal education in the many branches of the public utility business."

In Connecticut, Mr. Ferguson's interests also were widespread in the insurance, banking, commercial, industrial and scientific fields, where he was known for his constructive and progressive approach to many problems.

Mr. Ferguson was frequently called upon to testify as a witness before committees in Congress, where his frank discussions of utility problems and his leadership in the industry in recognizing the obligation owed to the public by the power companies, received wide publicity.

Although Mr. Ferguson was a champion of the power exchange system, he at the same time believed in independence of company management and fought utility company amalgamation by stock purchase and holding company domination.

As early as 1926, *Fortune* magazine quoted him as saying: "I know of n more reprehensible abuse than for spec lators to buy up companies for hig prices, put them into a holding co pany, and then unload the holding co pany's securities at advanced prices an thus get completely out from under b fore the bubble is punctured. The pu lic has an interest in the extent of t capitalization of our companies, and our liberty of action in this respect abused, as it is today being abused some cases, there will be an eventual d of reckoning."

He pioneered in the establishment a voluntary power exchange system the Connecticut Valley. Through t expansion of this system, Connecti Massachusetts, Rhode Island, Ne Hampshire, northeastern New Yo New Jersey, and eastern Pennsylva electric companies finally joined in inter-connected power pooling arran ment. This provided economies of op ation and insured reliability of serv through the most efficient use of hyd electric and steam generating plants.

"Flexible Yet Determined" Man

"The Hartford Courant," comme ing editorially on the passing of one the city's leading citizens, had this say:

"This son of New Hampshire a Connecticut, small of stature and str of character, was the Yankee at his b Throughout his career there shone rugged insistence on fundamentals t speaks also for the best in the coun that raised the businessman to a n place in society. Samuel Ferguson, e countering in his later life a world u terly different from that into which had been born, wasted little time in n talgia. He was one of that group young engineers in the General Elect Company's home plant in Schenecta that went out from there through t country. They not only grew up wi the electrical industry, they were t industry.

"Mr. Ferguson was flexible yet det mined, a man at once progressive a devoted to principle. People who ne saw him at all nevertheless felt so thing of him through their contacts w the public utility he directed. Th who knew him in his office, his chur his circle of friends, knew also friendly smile and twinkling eye."

Historical Background of the American Way of Life

By Professor Clifton Ganus
Harding College, Searcy, Arkansas

An address before a General Sales Conference of the Southeastern Electric Exchange

WE SOMETIMES become very enthusiastic over an idea, a thought, a plan, but then grow somewhat cold and indifferent when we leave the source of enthusiasm. Perhaps we will forget the things that we have discussed, or may not be stirred enough to carry out the plan that is developed. I hope this is not the case.

You and I are building for tomorrow. We're building a house day by day. We're building a situation in which we shall find ourselves tomorrow. We've been building very clumsily, very shakily, on the defensive, rather than the offensive.

Take the Offensive

We've been allowing people to say things about us that are not true. We have been trying half-heartedly to defend ourselves, or to pass these things off as coming from some crank or crack-pot, or some "ism." I would like to see us go on the offensive.

The other day I was going from Harding College on a little outing as a sponsor of one of the clubs to Betty Jane Mountain, a park about 90 miles from Harding College. I was riding in the cab of a truck with the man who owned the truck, and another in a small business in Searcy. I thought I would find out how much he knew about our American way of life and so I said, "Are you a capitalist?" And he said, "Why, no, I'm not a capitalist." I said, "Are you sure?" "Well, I don't think I am." "Do you own this truck?" "Yes, I own it." I knew he owned it, I knew he had another one.

I knew something about his business, and so I began to talk to him about the American way of life and he was almost proud to be called a capitalist. But he didn't know it. That's one of the troubles in America. We've been too busy to learn the facts and to preach them. Our educators are busy people, they have too many students to teach. We send more boys and girls to college and high school, than all the rest of the world combined. We don't have an adequate staff to take care of them. They have been busy trying to develop them, culturally, for life. They haven't had time to learn themselves the economic facts of life. Our students haven't had time to learn, our preachers haven't.

It was my privilege the other day to speak to a manufacturers' association in Muskegon, Mich. They had a group of 50 or 60 preachers who came in and went through the plants in the morning, and at noon came together for a luncheon, and I spoke to them. Then that afternoon they went back to the plant and sat down and took off their coats and rolled up their sleeves and started asking questions and getting answers to the things and the problems they wanted to know about. When I had finished speaking to them at noon, one of the preachers came up to me and shook my hand warmly and said, "Mr. Ganus, I agree wholeheartedly with you on everything you say but one thing, and that's competition. It's an evil and a vicious thing. We must be rid of it." And so I began to explain to him just what part competition played in the American system and in free enterprise. I think perhaps he saw a little bit about it but that little session wasn't enough. He needs more of the facts concerning it.

We all need to know the facts. People are only what they are taught to be. What more can you expect of them. We learn by seeing and hearing, by touching and tasting and smelling, our empirical senses, and all we can expect to be is what we learn through these things.

"Socialism By Default"

We've grown up in an era of government handouts, an era of socialism by default. Perhaps I had better explain that. In the *"Fortune"* magazine of March 1949 you'll find an article by John Davenport, which is entitled "Socialism by Default." If you can, by all means read it. Perhaps some of you have seen it. It's an excellent article, showing that the government in increasing taxes to do the job that it wants to do is depriving us of the privilege of doing for ourselves what we would like to do for ourselves and for others. And then the government turns around and says, "You can't do it yourselves, we'll do it. But we've got to have more money. Therefore we'll have to have more taxes." That leaves us with less to do for ourselves and for others, and so there's a vicious circle and it's hard to stop it.

Socialism, not because we want it, but by default, that's what he titles his article. It's good. Get it if you can and read it. For we've grown up in a system like that and we've learned through the things with which we've come in contact.

Freedom and Truth

We need to know the facts. It was Abraham Lincoln who once said, "Tell the people the truth and they'll stay free." And I believe that. It's only under delusion and deceitfulness that men will give up their liberty and their freedom.

I should like very briefly to document something that Dr. Benson of Harding College has been preaching to the effect that we do not know our American way of life—our preachers don't—our teachers don't. I speak that knowing full well that there are many educators and many preachers who know our system very well. I'm not saying that all of them are in the same class, but many of them do not know. I do not think that a majority of them are communists or socialists or left-wingers. I think they're good law-abiding American citizens but too often they don't know the facts. I think you will find that to be true in many colleges and universities.

At a meeting of the Arkansas Historical Association I attended, the main speaker was a doctor from a university near my home. He read a paper on the new south and he's a historian in the new south. He's an authority and he said "We have our racial problems in the south, but they're not nearly so bad as our economic problems—capitalism, its

ill-gotten gain and its unequal distribution of wealth." He didn't explain, he didn't describe. He went on to another thought. He writes that in his book and I know because I use his book and it's a good one. He didn't explain, so I decided that I'd find out what he knew about the American way of life.

That afternoon I talked with him about two hours or more. I found out that he knew nothing about the American way of life through experience and contact with it. He had grown up from a poor family in South Carolina, had gone to Columbia University, had then gone into the teaching profession, spent all his life in studying southern history and was good, was an authority on the subject but had no contact with the economic life.

Authoritative False Statements

That afternoon I mentioned that my father was in the restaurant business. He said, "Oh, fine, I've always wanted to go into the hot-dog stand business or something of that nature"—an indication that he had tried business or wanted to try but didn't have the opportunity, and so stayed in the teaching profession. He said, "You know a friend of mine was a veteran who came back from the war. He went into the cleaners and pressers business. Every day he cleans a stack of clothes about that high. I know that he's clearing at least $50 a day and that's more than we history professors make"—another indication to the effect that he doesn't know profits, and that he has an axe to grind in the fact that here is a man in the lowly cleaners and pressers business, making more money than he, as head of the history department. And so I put all things together and found out that this gentleman didn't know very much about it. And yet he makes a statement like that. A general statement that he writes in his books and students read. They say "that doctor so-and-so is an authority. He must know what he's talking about."

Facts for Explaining

Sometimes we leave ourselves up in the air without describing or explaining the statements that we make. I grant you there are many examples of capitalism, of its ill-gotten gain—there are many examples of unequal distribution of wealth. That's quite true, but I think we ought to explain and describe, and to preach the facts and the truth concerning it.

Let us look into the history of the development of America and see the free system which is hers. We ought to tell the truth and take the consequences. To readily admit its faults as well as its good points. But that's difficult to do. We're sometimes like the pendulum of a clock—we go from one extreme to the other. If we're on the side of Americanism we go all out for it and we can't see the bad points, if we're against it we go all out in opposition and we can't see the good points.

Improvement Within the System

I don't want you to get the idea that I think that America is a Utopia. Far from it, she's not. We have many difficulties and many faults that need to be corrected. But let's not burn down the barn in order to get rid of the rats, as did the legendary Dutch farmer. What we need to do is to improve and increase the efficiency within the system, not to tear it down as some would have us do.

It is a long story that goes a long way back, this American way of life. It wasn't born yesterday. It wasn't thought up all of a sudden. No one sat down and dreamed it. At least not on one occasion. It's a long story. Let us go back for a few minutes, back, back, back to 476 A.D. It's a long way back there. What could that have to do with America? Not much, except in this way. That was the beginning of what we call the Dark Ages, or the Middle Ages. A period of intense monasticism and otherworldliness in which people were not so especially interested in this life; in which the dominant interest was the Roman Catholic church, the institution that alone was left after the fall of Rome. It was an age of explicit faith, an age in which men could not think for themselves nor plan for themselves. There was no individuality. I am speaking generally, of course. You were a part of something—a part of your guild—a part of the manor in which you lived. A part of the church—and someone else did your planning and your thinking for you and pushed you around like a pawn. The church was opposed to profit—it was evil and sinful. There couldn't be profit in business. Your land, your countries, were divided up into manorial estates—somewhat like the plantations of the old south, self-sufficient.

Then came the Crusades at the close of the Eleventh Century. The Crusades did a marvelous thing for the world because they caused men to leave their homes and go to other lands and see what other people had in store for them. They saw the spices, the silks, the beautiful jewelry, and they saw that life was n only a vale of tears but it held somethi beautiful and something fine to gra Cities began to grow up because tra began to flourish.

And with the rise of the cities, the came about a new man—a modern ma A man who is not willing to take ever thing for granted, who is not willing t turn all the way back to the past learn, but who began to project himse into the future. What Plato had sai and Aristotle and Socrates and Ptolem and others—that was thought to b truth. Nothing new could be truth. Y had to go back to learn, to be educate

Free, Modern Men

But the modern man began to gro and to develop. Men like Andre Vesalius, a Flemish doctor. He was man who didn't believe in using dogs an cats and animals to learn about the sy tem of the human body. He went out the graveyards at night and dug up bodi and took them home and pulled dow the shades and lit his candles and di sected them, and the church would n allow him to do that. He was a moder man. He was thinking of the future an became the doctor who is known as th father of modern anatomy.

Men like Copernicus and men lik Christopher Columbus—they were mo ern men. Men who began to think an to plan for themselves, to dream, wit a possibility of a realization of th dream. You know the story in 149 when Columbus came to the New World You know the result of it: Spain an Portugal began to settle the New Worl a hundred years before the English came They set up their colonies, they strictl controlled them. The idea of profit a being an evil thing began to change, be cause trade began to flourish around th world.

Mercantilism—A Planned Economy

But a new idea developed called "mer cantilism."—Our planned economy, a we sometimes call it today. It was eco nomic nationalism, and England an Spain and the other countries that wer colonizing began to look upon their colo nies as nothing more than objects or tool to be used for the good of the mother country. Thus the colony produced wha the mother country needed, and became a source of raw materials, and markets fo the mother country. That was the ide under which America was settled.

We haven't time to go into the dis cussion of the Spanish colonies, bu

Mexico, Guatemala, Nicaragua, Santa Domingo, Cuba—all of these areas were dominated by Spain at first. She strictly controlled them under "mercantilism" or planned economy. They did not grow and develop under free enterprise at all.

Let me give you an example of that. Spain wanted them to produce what she needed, not to go into competition with the mother country. A man by the name of Manuel Degaldo, who was one of the revolutionists in 1810 in Mexico, planted a grape vineyard. The Spanish came and cut it down. Why? Because they didn't want him to go into competition with the Spanish merchants of Spain. That's one little example that was multiplied a thousand times.

The Jamestown Experiment

But let's come home and see what happened in America. Our first permanent English colony in America was Jamestown in 1607. How many of you know that that too was started as a communistic enterprise. We don't learn that in our history books—it's passed over, but it's the truth. It was started off by a London company in a system of communism, not like it is in Russia today, but a communistic system. All that was produced went into common storehouse, from which all people lived. That was in 1607. The colony did not prosper. It began to go down—to deteriorate. But when, in 1611, Sir Thomas Dale came to America, just four years later, something happened. The colony began to prosper and to grow. Men began to work as they had never worked before. Listen to Captain John Smith, who said, "Before Sir Thomas Dale came to America, men would not work, they slumbered over their task or they slipped away, nay they would not take so much pains (or "true pain" as he called it) in a week as now they take in a day, and we did not reap so much corn for their labors in 30 days from 30 men as much as now we reap from 3 or 4."

What was that marvelous thing that happened? Did they get behind them with a whip? Did they promise a concentration camp? Did they say if you won't work you won't eat? No. He divided out the land and started free enterprise. He let each man keep for himself what he made. Men began to work because there was an incentive, before there wasn't.

The same thing took place up in the north in the colony of Plymouth Rock. In 1620 they came over. They intended to land near Jamestown but they missed their course, they were blown off. They landed in Plymouth Rock in Massachusetts. Just before they came off the ship, 101 of them altogether, 41 of the pilgrim fathers got together and formed what is known as the first constitution of the New World, the Mayflower Compact. This was the genesis of American democracy.

The Beginnings of Free Enterprise in America

Since they were not an established authority, some of them decided to do as they pleased in the New World. Anarchy might prevail and so they formed a social compact. There must be rules and regulations and thus they landed and thus they established a colony, again on a communistic system or a basis. It didn't last very long here either. In a couple of years they learned a lesson, they too divided out the land, and the wives and the husbands began to go to the fields to work. There was a reason for it and the men began to work and the children began to work and in 1623 came our first proclaimed Thanksgiving. It was under the free enterprise system. You see we know something about communism in America. We have tried it. Not only on these two occasions but on multitudes of occasions since then as I shall mention a little later on. That was the beginning.

Then one by one other colonies were started—Connecticut, Rhode Island, Massachusetts, Pennsylvania, North and South Carolina, Georgia, the last one in 1732. Of all the colonies perhaps Pennsylvania flourished more than the others. She was prosperous. She was a great colony. Why? Because William Penn was the director. What does that have to do with it? Because William Penn in 1701 signed a Charter of Liberty that granted the people freedom. A bill of rights somewhat similar to that in our own Constitution. He invited people to come over from Europe. He advertised and he gave them liberty and freedom and they grew and developed and became a prosperous and thriving colony. More so than others.

The American Revolution

When finally we had completed our 13 colonies along the Atlantic Coast, you will remember some of the other events that took place. In 1765, when we were having difficulty with England, we decided to break away from them. First the Navigation Acts of the 60's; 1765, The Stamp Act, when they wanted to tax all the documents and letters and so on that changed hands in America. In 1770, the Boston Massacre; in 1773, the Boston Tea Party; in 1775, the Battle of Concord and Lexington and the shot that was heard around the world. We were chafing under the regulations of England because mercantilism was still the plan and the idea. The colonies existed for the good of the mother country. We called it legislation, or taxation without representation. We didn't like the rules and regulations that were placed upon us. We wanted to be free from them and so you remember the results. After Lexington and Concord and Bunker Hill came Yorktown, where Cornwallis surrendered to Washington, and the war was over. You remember how we set ourselves up under the Articles of Confederation. It didn't work.

Constitutional Guarantees

Then came the time to make the Constitution. That must have been a memorable occasion to those who were there. Picked men from all over America—George Washington, Alexander Hamilton, John Jay, James Madison, Pinkney, and Geary. From all over the 13 colonies, or 12 of them, there came the best men and the best minds of the country, with the exception perhaps of Thomas Jefferson who was away in Europe on a job for America. Finally, when they had completed their work and the Constitution had been formed, old Benjamin Franklin, an elderly man at the time, arose and he said, "Mr. President," and George Washington was President of the Assembly, "I have been wondering whether the picture on the back of your chair," and there was a picture of the sun over the horizon, "I have been wondering whether it was the picture of a rising sun or a setting sun. Now I know that it is a rising sun and America will rise with it." Words of prophecy. We have come a long way in 173 years—a long way.

But that was the beginning of the Constitution—the bed rock, the foundation—in which is guaranteed our freedom. I don't say freedoms, but our freedom. I don't believe there are four freedoms, nor 10, nor 50 freedoms. I would rather think of them as characteristics of freedom. I know sometimes we call them freedoms, but they are characteristics of freedom, for freedom is indivisible, as Eisenhower puts it, and Stassen and others.

Freedom is indivisible, you can't quarter it, you can't halve it, you can't enumerate it. It's freedom, or it's not free-

dom. So many different definitions are given for freedom. Let me add my 2 cents worth, please, to a definition of freedom.

Freedom is the opportunity for man to grow and to develop according to his capabilities, and to increase his capabilities without interfering in the same right of others. In other words, as we put it simply sometimes, it is my right to swing my fist if I want to, but my right ends where the other man's nose begins; or to kick my foot, but it ends where the other man's shins begin.

That's putting it very mildly, oversimplifying it perhaps, but maybe that's what freedom is.

The Constitution guaranteed us that freedom.

Inalienable Rights

It was Thomas Jefferson who said, "The God that gave us life gave us liberty at the same time." It was he that said in the Declaration of Independence, "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain inalienable rights, among these are life, liberty and the pursuit of happiness." That was Thomas Jefferson. He did not mean that all men were created equal in the sense of ability, that all men were created equal in the sense of wealth and the assets that were theirs, not by any means, for he stood head and shoulders above others in wealth, ability, mind, and so on. What did he mean? That the creator had endowed us with certain inalienable rights and that among these are life, liberty and the pursuit of happiness—there's the equality.

Freedom With Responsibility

The Constitution guarantees us that and we must abide by it. It became our bed rock in our foundation for freedom, for liberty. You remember the amendments—the Bill of Rights as we called them — which guarantee freedom of speech. We have freedom of speech. If you don't like the mayor of your town, you can tell him so right to his face. You can humorously depict him in a cartoon, you can say what you want to about him in editorials, but remember, with freedom comes likewise responsibility—with liberty comes duty and obligation. We can't go too far, or we snap the string. We can't say those things that are libelous, slanderous, and false. If I don't like the President I can tell him so.

It reminds me of a little story I heard one time about freedom of speech in Russia and America, in a comparison. There were two soldiers talking, Privates, one of the Russian Army and one of the American Army. So Sam of the American Army said to Joe of the Russian Army, "We have freedom of speech. I can get on a ship, and go back to America, get off at Washington, go right up to the White House and stand up before Harry Truman and say 'Harry Truman, you're a louse'." And Joe said to Sam, "That's right and we have freedom of speech too. I can go to Moscow, I can get into the Kremlin, I can stand right up before Joseph Stalin and I can say, 'Joseph Stalin, Harry Truman is a louse'. You see we have freedom of speech too."

Freedom of worship, of religion is also guaranteed to us in the Constitution. We know well what that means to us. We have security guaranteed, too—I left my home last night, not afraid that it would be violated by any individual or by the government, it would not be quartered by troops, because its inviolable, because the Constitution guarantees it. I have security—my person and papers and effects, my property. It is not that way under communism and other isms.

Communist "Security"

I remember when Yugoslavia was taken over by the Communists and the communists decided to go into the hog-raising business. You know how they got started? They sent their agents throughout the country and collected the best of the breeding stock and paid the farmers one-tenth of the market value. They had no security.

Those are just characteristics of the freedom that is ours, that are guaranteed in the Constitution. But you know if the government owned all the railroads and all the newspapers, did all the hiring and all the firing, both of the teachers and all of the American industry and so on, we could not have freedom of speech, we could not have security, we could not have justice, we could not have freedom of worship. It cannot be. It's incompatible. If you don't have that phase, economic freedom, you cannot have your other freedoms. One by one they slip away from you.

Time goes on and socialism comes by default. We're drifting close, we have to stop. Dr. Benson has said that he would be very happy to stop where we are now. It would be well. It would be nice if we could back-track just a little bit. But I wonder. We have to have economic freedom as we have seen in the past. Freedom to plan, to dream, t choose for ourselves. That's a part o the freedom that's America. A part tha has grown and developed in the last 17 years. We've come a long way from th 13 struggling colonies on the Atlanti coast. We've grown and spread acros the continent. We've joined togethe with webs of steel and concrete, we visi one another in giant airliners, and ocea ships, and automobiles, in abundance. Our great fertile fields, our teeming cities, Atlanta and New Orleans—ou little towns like Searcy, Arkansas. We've come a long way in 173 years and we've come this far because of our freedom an our liberty.

Liberty and Duty

But let us likewise remember, and thi is something that every businessman need to know as well as every educator an every preacher—that with that liber and with that freedom comes respons bility. We didn't know that back in th 80's and the 70's and the 90's. It too the Sherman Anti-Trust Act and it too other legislation to make us realize tha fact. Yes, there were people of ill-gotte gain, there was unequal distribution o wealth. There were defects in our sys tem that we tried to improve all along within the system. But with every free dom there comes responsibility and wit every liberty there comes duty. Let's no forget that. If we don't forget it, w can work within the system that ha given us so much, and improve it s much more. We've come a long way i 173 years.

Tell the People

I want us to realize that fact and t place it upon our hearts and to preach it. Take every opportunity that we have t tell it to someone else. Oh, but I'm no a speaker, I'm not an orator, I can hardl stand before people. Maybe that's so but remember this—the advice that a old preacher gave to a young one—"I you want to be successful, fill up the bar rel, knock out the bottom, and let 'e flow." You get full of it, full of the facts and full of zeal and inspiration, and you don't have to worry about not be ing a speaker. It will flow out. Take every opportunity. When you have an opportunity to invite educators in—invite them in, and when you have an opportunity to speak before them and their students, speak to them, or get someone else to. Show them films, use the literature that is available.

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National Accounting Conference Promises Lively Sessions, More Discussion

THIS year the aim of those planning the program of the National Conference of Electric and Gas Utility Accountants, to be held at Louisville, Ky., April 17-19, is to emphasize informal discussion and to minimize the reading of long papers and reports, some of which, though full of valuable facts and thoughtful conclusions and of permanent usefulness as references, may sound rather dull when read. The effort will be to keep presentation of papers and reports whenever practicable, down to a lively summary of major points, leaving time for questions or discussion from the floor. However, all committee chairmen have been asked to have complete copies of their reports available for distribution at the conference.

General Session

Following the established pattern for these conferences, the first session will be a general one on Monday afternoon, April 17, at 2 o'clock, with W. H. Zimmer, The Cincinnati Gas & Electric Co., chairman of the Accounting Division of EEI, and J. H. W. Roper, Washington Gas Light Co., chairman of the Accounting Section of AGA, presiding. There will be an address of welcome from an officer of the Louisville Gas & Electric Co., and greetings from H. Carl Wolf and Colonel H. S. Bennion, managing directors of the two associations. The two principal speakers from outside the industries will be E. Wight Bakke, director of the Labor Management Center, Yale University, who will speak on "Collective Bargaining in a Competitive Economy," and Merryle Rukeyser, columnist and economist for the New York *Journal American*, the title of whose address has not yet been announced. It will, however, deal with present economic trends which are or should be of direct interest to electric and gas utility accountants.

Motion Picture on "Aptitude Testing"

Variety in the general session will be provided through a colored motion picture showing the practical application of "aptitude testing," with special reference to the selection of accounting office employees. This has been procured from William Sweetman, The Peoples Gas Light & Coke Co., Chicago, Ill., who will comment on the picture as shown and will be glad to answer inquiries.

Group Meetings

Tuesday is to be devoted to group meetings. These will include general accounting activities, internal auditing, taxation accounting, plant accounting and property records, depreciation accounting and customer activities.

General Accounting Activities

L. C. Provencher, The Detroit Edison Co., and S. P. Osborn, Texas Eastern Transmission Corp., Shreveport, La., will act as joint chairmen. A resume of the activities of the two General Accounting Committees and their subcommittees will be presented and discussed, together with some consideration of future projects for study in the general accounting field. This meeting will also include a discussion of "Proposed Rationalization of the Electric and Gas Industry's Treatment of Overhead and Indirect Costs," led by O. K. Boyd, Consolidated Gas Electric Light & Power Co. of Baltimore, and E. Toder, Consolidated Telegraph & Electrical Subway Co., New York City; and a discussion on possibilities for reducing operating and construction record retention schedules, led by Ohmer Ullery, The Ohio Fuel Gas Co., and J. G. Hoffman, Consolidated Gas Electric Light & Power Co. of Baltimore.

Afternoon Program

On Tuesday afternoon the General Accounting Committees will discuss: "Clerical Work Measurements"—leader to be announced; and "Techniques of Pension Accounting"—leader also to be announced. Other probable subjects for discussion are: "The Use of Conversion Factors in Translating Monetary Income Into Economic Income"; and "Methods of Determining the Rate to be Used in the Capitalization of Interest During Construction."

Internal Auditing

J. K. Laurentz, The Brooklyn Union Gas Co., and H. R. Symes, The Detroit Edison Co., will preside at the Internal Auditing meeting. The morning session is scheduled to take up the accounting control and auditing of materials and supplies. Various aspects of this field to be discussed are: Spare and Emergency Parts—discussion leader, J. B. Schmid, Long Island Lighting Co.; Merchandise and Appliance Service Parts—J. C. Meyers, Union Electric Co. of Missouri; General Materials and Supplies—W. T. Hofstetter, The Peoples Gas Light & Coke Co.; and Salvage and Scrap Materials — A. I. Russak, The Cincinnati Gas & Electric Co.

At the afternoon session of the Internal Audit group, C. J. Nichols, Consolidated Gas, Electric Light & Power Co. of Baltimore, will speak on "The Scope of Public Utility Auditing and the Latitude Accorded the Internal Auditor in his Work." W. T. Hamilton, The Cleveland Electric Illuminating Co., will deal with "Investigation Work of the Internal Auditor as Contrasted with Checking for Accuracy and Conformance with Prescribed Procedures"; and W. L. Schoonmaker, Public Service Electric & Gas Co., will describe "The Relation Between Systems and Internal Auditing Work."

Taxation Accounting Committees

The two Taxation Committees will hold a meeting on Tuesday morning open to all interested in the subjects to be discussed. Chairmen jointly presiding will be C. J. Trudeau, Wisconsin Electric Power Co., and H. W. Ziethen, The Peoples Gas Light & Coke Co. The meeting will start with a panel discussion on the functions and operation of various types of tax departments, led by C. F. McCarthy, tax manager of Arthur Andersen & Co., Chicago, Illinois. This will be followed by a report on recent court decisions given by W. S. Alt, Union Electric Co. of Missouri.

On Tuesday afternoon the two Tax Accounting Committees will hold a closed session open to committee members only, at which various technical aspects of taxation primarily pertaining to federal income taxes will be informally discussed.

Plant Accounting and Property Records Committees

The two industry committees on Plant Accounting and Property Records, will meet jointly Tuesday morning with co-chairmen H. F. Carey, Long Island Lighting Co., and F. E. Drapalik, Union Electric Co. of Missouri, presiding. The morning session will be devoted to: (a) a paper on "Field Verification of Property Record Units" prepared by a subcommittee headed by F. W. Ross, Pennsylvania Power & Light Co.; and (b) a paper on "Simplification of Records and Accounting" presented by C. E. Raines, Niagara Mohawk Power Corp., for a subcommittee of which he is chairman.

On Tuesday afternoon the committees will take up two other subcommittee reports, one on "Aspects of Betterment Accounting," subcommittee chairman A. J. Brodtmann, New Orleans Public Service Inc.; another on "Work Order Procedure for Inside Plant," project chairman W. G. Pilgrim, The Peoples Gas Light & Coke Co. Finally the session will have a "Question and Answer Period" led by C. S. Jones, Consolidated Edison Co. of New York, Inc., chairman of a subcommittee on this project.

Customer Activities Committees

All Customer Activities committees will meet as a group Tuesday morning with J. D. Elliott, The Detroit Edison Co., and E. R. Eberle, Public Service Electric & Gas Co., presiding as chairmen. W. R. Keagy, The Cincinnati Gas & Electric Co., will discuss "The Acid Test of Good Customer Relations in a Crisis." A report on "A System Directory of Customer Accounting Activities," giving a comprehensive view of "how others do it" will be given by A. W. Merchant, Michigan Consolidated Gas Co. Part of the morning session will be devoted to a panel discussion on credit and collection questions with H. S. Hahn, The Ohio Fuel Gas Co., acting as moderator. Other participants will be: F. J. Flom, The Detroit Edison Co., C. L. Havener, Consolidated Edison Co. of New York, Inc., R. B. Mitchell, The Peoples Gas Light & Coke Co., and J. B. Olsson, The Brooklyn Union Gas Co. "Permanent Account Numbers"—the use of customer numbering systems that will avoid or minimize changes in the numbering of individual customer's accounts when redistricting or expanding, is also a possible topic for this session.

The Customer Activities group will break up into three groups—Customer Accounting, Credit and Collections, and Customer Relations—for luncheon sessions which will continue on into the afternoon.

The Customer Accounting Committees—R. B. McCrorey, Georgia Power Co., and G. E. Curtis, Boston Consolidated Gas Co., co-chairmen, will conduct a "Question Box" following their luncheon. The leader will be F. W. Phelps, Union Electric Co. of Missouri, and the effort will be to stimulate discussion through the question and answer procedure.

The Credit and Collection Committees—S. C. Grant, Philadelphia Electric Co., and O. B. Cook, Battle Creek Gas Co., co-chairmen, will offer "An Erudite College of Credit Knowledge," further described as "a novel presentation of collection thought with audience participation." The pattern seems to be something like an "Information Please" or "try-to-stump-the-experts" program. The "faculty" of the "college" will be headed by C. W. Tobey, The East Ohio Gas Co., and W. E. Travis, The Cleveland Electric Illuminating Co.

Customer Relations Committees—co-chairmen Louis Stoecker, Public Service Electric & Gas Co., and W. S. Frick, The East Ohio Gas Co.—will spend Tuesday afternoon in a discussion of "Pet Peeves," otherwise described as "customer service irritations and their cures." E. M. Alt, Northern Indiana Public Service Co., will act as leader.

Depreciation Accounting Committee (EEI)

The Depreciation Committee meetings will be presided over by Alex. E. Bauhan, Public Service Electric & Gas Co. The Tuesday morning topics for discussion will be: (a) "Salvage and Cost of Removal Analysis and Estimation," presented by M. J. Gonzales, Consolidated Edison Co. of New York, Inc.; (b) "A Depreciation Case History," presented by P. L. Griffith, Gilbert Associates, Inc., New York City, and (c) "Depreciation Practices of Various Companies"—a summary review of the principal differences within the industry in methods used in depreciation accounting given by W. J. Foster, Jr., New York State Electric & Gas Corp.

At its Tuesday afternoon meeting the committee will hear about and discuss "Depreciation Regulations of Various Federal Commissions," presented by C. T. Dwight, The Hartford Electric Light Co.; "Recent Court and Commission Decisions on Depreciation," by M. R. Scharff, New York City, and "Depreciation Variables — Books Vs Income Tax"—leader to be announced.

The General Activities group (all accounting groups other than Customer Activities and Materials and Supplies) will have a luncheon Tuesday noon with a brief program, the details of which have not been announced. After luncheon the group will break up into the various committee meetings already described.

"Bull Sessions"

A novelty for these conferences will be a series of "bull sessions" beginning 3:15 Tuesday afternoon, which will be characterized by a large room containing a number of tables where "Cokes" and other refreshments can be served during informal discussion. Different groups or projects will be assigned designated tables and participants can move from one to another taking such part in each discussion as the spirit moves.

On Tuesday evening will occur the conference dinner with entertainment but without speeches.

Wednesday morning will witness another innovation in the form of a general session for all, although the Customer Activities Group are expected to devote the morning to their own sphere of interest. At the Wednesday general session after a brief outline of the organized Accounting Committee work by the two chairmen, W. H. Zimmer, EEI, and J. H. W. Roper, AGA, three topics of great interest to all public utility accountants will be presented by speakers exceptionally qualified to deal with their subjects.

The joint subcommittee of the two General Accounting Committees on "Cost Reduction Through Systems and Methods Work" will present at this session some proposals for cost reduction through work simplification that should be of vital interest to all utility accountants. Probably most of the more

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EEI Sales Conference Will Offer Unusually Comprehensive Program

As post-war sales efforts gather increasing momentum in the electric industry, an extraordinarily comprehensive program is taking form for the 16th Annual Sales Conference of the Edison Electric Institute, to be held at the Edgewater Beach Hotel in Chicago, April 3 to 6.

Variety of Topics Covered

There is hardly a subject of concern to sales executives that will not be covered in the more than 50 addresses and presentations scheduled. Subjects range from the current business outlook to training techniques that develop star salesmen, with specialized papers and sessions on practically all phases of sales activities. Twelve subjects will be discussed at the General Sessions, and the same number at both the Commercial Sales Sessions and the Industrial Power and Heating Session. The Electrical Living Session will have seven and the Home Service Conference three. The Farm Sessions will have nine.

Harry Restofski, Chairman of the Commercial Division General Committee reports that advance registration for the Conference is extremely heavy.

Monday, April 3, will be devoted to Commercial Division committee meetings, with a Home Service Conference, first introduced at last year's convention, to be held that afternoon.

Section Conferences

The Residential, Farm, Commercial Sales and Industrial Power and Heating Sections have scheduled programs for all-day conferences on Tuesday, April 4. General Sessions will be held on Wednesday, April 5, and the morning of Thursday, April 6. The Sales Conference will close with a luncheon session on Thursday, which will feature an address by Elmer L. Lindseth, President of the Edison Electric Institute and president, The Cleveland Electric Illuminating Co.

The General Sessions will be presided over by Harry Restofski, Chairman of the EEI Commercial Division General Committee and general sales manager, West Penn Power Co. The first session will be addressed by Ralph Robey, Chief Economist, N.A.M., on the current business outlook, and Grover C. Neff, president, Wisconsin Power and Light Co., will speak on farm electrification. The morning session will conclude with an address by Jack Lacy of the Lacy Sales Institute on "Training Techniques That Develop Star Salesmen."

On Wednesday afternoon, delegates will see a skit illustrating the importance of planned lighting to the industry as a whole. Fred A. Compton, vice president, Detroit Edison Co., will discuss residential heating problems with particular emphasis on radiant panel heating. The afternoon session will close with a speech by Professor Clifton L. Ganus on "Private Enterprise."

Prize Awards

Thursday morning, April 6, will feature the announcement of prize award contests and presentation of the 1949 awards by George E. Whitwell, vice president, Philadelphia Electric Co.; a talk by Robert C. Hienton, general sales manager, The Cleveland Electric Illuminating Co.; on "Stepped Up Industrial Sales Promotion; while James J. Nance, president, Hotpoint, Inc., will discuss the electrical appliance outlook for 1950-51.

An as yet unannounced speaker will discuss television as it affects the industry, and Chairman Restofski will close the session with a summary of "Where Do We Go From Here."

Home Service Conference

The Home Service Conference, scheduled for Monday afternoon, April 3, will include a talk on "What's New in Laundry Research," by Dr. Elaine K. Weaver, assistant professor, School of Home Economics, Ohio State University; a discussion of television programs for women in the home; and a skit on how to sell home freezers. In addition to the conference in the afternoon, there will be a Home Service Committee meeting Monday morning, and Tuesday morning there will be a Home Service Breakfast, where T. J. Newcomb, sales manager of Electrical Appliance Division, Westinghouse Corp., Mansfield, Ohio, will speak on "Selling the Use of Electrical Appliances."

Residential Section

For its all-day conference on Electrical Living on Tuesday, April 4, the Residential Section has planned a program to include speeches on "The Possibilities of Automatic Washers and Dryers," by Roger Bolin, assistant to the vice president, Consumer Products, Westinghouse Electric Corp.; "How Utilities Are Developing Load Through Dealers," by T. L. Losby, Northern States Power Co., chairman, Dealer Coordination Committee; and "The Role of Women in The Industry," by O. R. Doerr, vice president in charge of sales, Pacific Gas & Electric Co. The morning session will end with a skit on electric kitchens.

In the afternoon, the Residential Section has arranged a skit illustrating the changes made by television in the lighting and living habits of customers. Joe Rushton, Frigidaire Sales Corp., will talk on the next steps in meeting fuel competition. Following this, will be a discussion of certified lamps as the keystone of residential lighting promotion, and the session will close with a speech by J. M. Stedman, Pennsylvania Power & Light Co., chairman, Home Lighting Education Committee, Better Light-Better Sight Bureau, on "Teaching About Light and Sight in Junior High School Science Classes."

Farm Section

Among the topics to be covered during the morning session of the Farm Section Conference, with Chairman J. C. Cahill presiding are: "A Farm Load Building Program for 1950," by John L. Burgan, New York State Electric & Gas Corp., chairman, Farm Utilization Committee; "A Water Systems Program for 1950," by C. D. Leiter, sales manager, The F. E. Myers & Bro. Co.; and "Plus Values On Our Farms," by Ashton B. Collins, Reddy Kilowatt Service.

At the Farm Luncheon to be held at noon, Wednesday, April 5, L. L. Rummell, Dean of Agriculture, Ohio State University, will address farm section members on how the electric industry can best serve agriculture.

Leading off the afternoon program, Herman J. Gallagher, Consumers Power Co., chairman, Rural Youth Committee, will tell about rural youth activities. He will be followed by A. G. Kettunen, State 4-H Club Leader, Michigan State College, who will present a yardstick on electric company cooperation with 4-H Club work. Community and farm customer development will be discussed by R. T. Jones, Pennsylvania Power & Light Co., chairman, Agriculture Development Committee, while A. G. Mayer, Washington Water Power Co., will tell of the effects of an active rural youth and agricultural development program in his territory.

Industrial Power and Heating

The Industrial Power and Heating Section will open its all-day conference with a report on industrial sales activities by Section Chairman Robert G. Ely, Public Service Electric & Gas Co. The next speaker, B. J. Martin, publisher, *Electrified Industry,* will talk about economies in production. C. T. Shoch, Pennsylvania Power & Light Co., will discuss the methods used by his company in the training and supervision of power salesmen. Of special interest should be a speech on the comparatively new subject of ultrasonic applications in industry by Dr. Robert O. Fehr, General Electric Co.

At the afternoon session of the Industrial Power and Heating Section, G. S. Young, Kansas City Power & Light Co., will tell of the increasing benefits to be obtained by industry through the purchase of electric power. Other subjects to be covered include: "The Impact of New Power Applications on Various Industries," by J. L. Singleton, vice president and director of sales, Allis-Chalmers Manufacturing Co.; "The Need For More Active Promotion of the Industrial Lighting Market," by J. Mason Guillory, New Orleans Public Service, Inc.; and industrial sales—vital to electric companies.

Commercial Sales

The morning session of the Commercial Sales Section conference will be presided over by C. D. Hollister, Chairman, Commercial Lighting Committee, and will open with a report on the G.E. lighting clinics. Also featured will be a report on an Indianapolis Market Study by Frank Mansfield, National Electrical Manufacturers Association; a speech on highway lighting problems in New York State by C. E. Waldron, Niagara Mohawk Power Corp; and a report by L. H. Linemann, Duquesne Light Co., on how street lighting is sold in Pittsburgh. The morning session will close with a speech by J. R. Furber, Northern States Power Co., on "Using Light to Sell Light."

The afternoon session, presided over by S. S. Sansbury, Chairman, Commercial Cooking Committee, will open with a discussion by G. W. H. Allen, Dr ton Power and Light Co., of the Co mercial Sales Log and how it can b used. Other talks scheduled inclu "One in Five," by E. B. Haskell, T United Illuminating Co.; "The Od Are Ten to One," by G. V. Rork, pre dent, Northern States Power Co.; a "How to Use Kitchen Layouts to Pr mote Commercial Cooking," by H. Jones, West Penn Power Co. The will be a discussion by two speakers new commercial cooking sales tools a the session will close with an addre by David W. Grosshandler of Ho point, Inc., titled "The Flame Is G ing Out."

National Accounting Conference Promises Lively Sessions; More Discussion

(*Continued from page* 42)

obvious economies have already been put into effect by public utility management, but there remain a great many opportunities for further savings, some relatively small, but in the aggregate important, which the cost reduction committee has explored and will tell about.

The Taxation Accounting Committees expect to arrange for a talk by one of a group who have devoted the last two or three years to study for a better coordination and more precise division of responsibilities between federal, state, and local governments with a corresponding delimitation of appropriate fields for taxation. Some of their conclusions are bold and sweeping and many persons believe that if they could be adopted they would reform and rebuild our present chaotic jumble of tax laws into something that would greatly lessen the present tax burden or, at the very least, distribute it more equitably and remove a lot of headaches now suffered by utility financial officers and tax accountants.

Next on the Wednesday morning general session will be a talk by Ralph H. Besse, vice president and general counsel of The Cleveland Electric Illuminating Co., on "Depreciation and Deductibility," Mr. Besse has been responsible for some very able briefs in rate cases of his company and is fully conversant with both the legal and economic angles involved in the rate-base formula so often used by regulato bodies without full realization of all i implications and necessary qualificatio of "cost less depreciation." The EE Depreciation Accounting Committee h arranged for Mr. Besse's contributio

The Customer Activities group wi also hold a session Wednesday morni for all interested in that broad fiel J. D. Elliott and E. R. Eberle wi preside. Topics for discussion will i clude the following: "Billing of Lar Commercial and Industrial Account a paper presented for discussion M. J. Walsh, Consolidated Edison C of New York, Inc., the theme of whi will be "Is it time to change our thin ing on special accounts, and whe should the line be drawn?" Next w come "Collection Catalysts" — chang in credit and collection practices a procedures, presented by L. R. Qui Public Service Electric and Gas C "Reconcilement of Meters Billed" w be discussed by R. O. Jackson, G States Utilities Co. A progress repo on "Training Employees to Meet t Public" will be given by C. J. Bern Wisconsin Electric Power Co.

As has been the custom in rec years, there will be an exhibit of counting machines and office equipme at the Conference. Latest models many new devices for saving time a therefore money in utility account departments will be on view, with ma ufacturers' representatives to demo strate and explain them.

Incentives for Government Power

With Particular Reference to Some Recent Developments in a Midwest Area

By J. D. James

Assistant to President, Missouri Power & Light Company

An address before the MVEA Power Sales Conference, Kansas City, Mo., Feb. 9, 1950.

SURELY I must have had a weak moment when I agreed to discuss the "Incentives for Government Power" because I have been plagued by the threat of public power from the time I started working for Missouri Power & Light Company a little over 4 years ago. I had notions* —since proved to be false—that life with a going utility company would be fairly peaceful and free from the worries and turmoil encountered in highly competitive business and professional life.

"Something for Nothing"

It's not so! The municipal ownership advocates—the public power zealots—the "get something for nothing boys"—are on the march constantly, and you and I and all others in the industry are kept busy with our efforts to reveal their schemes in their true light. I have always been opposed to government invading the field of private free enterprise. While you and I are concerned particularly with the program which is intended to take the power industry out of private hands and put it into the hands of the government, all of us in America should be concerned with the various programs which encroach upon our much cherished freedom.

The inciting and motivating influences which keep certain people and groups of people pushing for government power, whether it be federal, state or municipal, seem to be numerous, but among the most frequently used reasons or excuses for advocating and supporting a public power program are:

Cheaper rates

Inability of private companies to supply adequate power

Failure of private companies to supply demands of rural areas at reasonable rates

Control of the source of power

Use of our natural water resources for benefit of the people

Cheap power for industrial development

Fight for the people against the selfish private power interests.

I could go on and enumerate other pet phrases which are used in speeches and press releases emanating from government propagandists, bureaucrats, congressmen and others, but the story is not new to you. You know the pattern as well as I know it.

Another highly significant incentive which prompts and inspires many an advocate of government power to condemn the private companies and "make his heart bleed" for his constituents because they find themselves "at the mercy of the selfish power companies" is politics. Politics, if it may be considered as an incentive, will be found as a strong force behind practically all of the public power plans.

At the risk of relating some things you perhaps already know, I shall talk about some developments which have taken place in our own Midwest area within the past few weeks. From what I say, I feel reasonably sure that you will be able to draw your own conclusions as to the incentives which are behind the announced plans for public power systems in this area.

The Super Co-op

On Jan. 31, 1950, the Rural Electrification Administration in Washington announced its approval of the largest loan it had ever made. That loan was for $18,368,000 to N. W. Electric Power Cooperative of Savannah, Mo. This loan was for the construction of a 40,000-kw steam plant near Missouri City, about 15 miles east of Kansas City; 220 miles of 150-kv transmission lines from Bull Shoals in northwest Arkansas to Missouri City; a transmission system of 57 miles of 154 kv, 505 miles of 69 kv and 75 miles of 34.5-kv transmission lines, substations and related facilities. This super-cooperative was formed by seven REA-financed distribution co-ops serving customers in 23 counties in Missouri, 6 in Iowa and one in Nebraska.

The super-cooperative has entered into an agreement with the Southwestern Power Administration whereby it sells the entire output of the steam plant to SPA. I understand SPA guarantees "Northwest" an 80 per cent plant load factor. In turn SPA will resell power to the super-cooperative and the super-cooperative will then resell the power to its members.

SPA Plans

SPA will also lease the 220 miles of 154-kv line from Bull Shoals to the Missouri City plant for a period of 40 years with the right to purchase the line at any time during the lease agreement.

In November, 1949, a loan of $11,350,000 was made by REA to Central Electric Power Cooperative of Linn, Mo., for the purpose of constructing a 15,000-kw steam plant on the river near Jefferson City, building 182 miles of 154-kv transmission line from Bull Shoals dam to the steam plant, and 283 miles of 69-kv transmission lines to customers. In conjunction with this loan another loan was made to Sho-Me Power Corporation for $2,000,000 to build 371 miles of 69-kv transmission lines within the Sho-Me property. Sho-Me is a member of the Central super-cooperative. Central also entered into a leasing and operating agreement with Southwestern Power Administration whereby SPA will lease and operate the transmission system, pay interest sufficient to amortize the loan over a period of 35 years, at the end of which time title to the transmission system will pass to SPA. SPA also contracts to purchase the entire output of Central's steam plant and, I understand, guarantees 85 per cent plant load factor. This super-

*Editor's Note: Mr. James was formerly chairman of the Missouri Public Service Commission.

cooperative will serve 35 counties in central Missouri.

A loan for similar purposes has been approved for a super-cooperative in Oklahoma, known as Western Electric Cooperative, Anadarko, Okla.

There is also pending a loan application by a super-cooperative in Arkansas known as Arkansas Electric Cooperative Corporation. This loan shall provide for a steam plant and miscellaneous transmission facilities, and the super-cooperative has also agreed to sell and the Southwestern Power Administration to purchase the entire output of the generating plant for 40 years at 85 per cent load factor.

The pattern in all of these loans is substantially the same. Briefly summarizing, the contracts provide that the fuel burning generating plants and the transmission lines and related facilities constructed through the use of REA will be operated for the benefit of and the entire output sold to Southwestern Power Administration for use of that agency. The lines and related facilities are leased for 35 or 40 years, during which time SPA has a continuing option to purchase the transmission facilities, and at the end of which time title to said properties vests in SPA. The entire output of the fuel burning generating plants will be sold by the super-cooperatives to SPA with the provision that the super-cooperatives shall buy back from SPA the power and energy requirements of said cooperatives and their distribution cooperative members.

Legality of Loans Questionable

The legality of these loans from REA funds to the super-cooperatives is questionable, and the companies in the southwest area are of the opinion that the use of REA funds as proposed by the super-cooperatives and SPA violates the Rural Electrification Act and the will and intent of Congress.

Congressman Boyd Tackett of Arkansas has introduced a bill in Congress "which has for its purpose the prohibiting of loans by the Rural Electrification Administration for the building of electric generating plants or transmission lines to be owned, leased, used, or operated by any other than Rural Electrification Cooperatives, without the consent of Congress."

In a speech in the House of Representatives on Monday, Jan. 16, 1950, with reference to these loans, Congressman Tackett has this to say:

"The entire agreement serves but one purpose and that is—to make use of funds from Rural Electrification Administration for the purpose of circumventing the clear and expressed will of the Congress in regard to operations of the Southwestern Power Administration as provided in section 5 of the Flood Control Act of 1944, and to circumvent the Rural Electrification Act of 1936 by permitting these Federal funds which are to be loaned for the purpose of serving persons in rural areas not receiving central station service to be used for the purpose of allowing Southwestern Power Administration to raid territories now adequately served. . . .

The Pattern Being Set

"The pattern thus set for the southwest area — Missouri, Oklahoma, Arkansas, east Texas, part of Mississippi, and all of Louisiana—will immediately provide a stepping stone for the same kind of subterfuge in the area covered by the Pick-Sloan plan in the Missouri Valley; for the area covered by the CVA bill now in Congress; for the New England States; and for the southeastern United States now being investigated along similar lines to those covered by the Southwestern Power Administration. If approved by the Rural Electrification Administration in Washington, with the acquiescence of the Congress, it will inevitably result in the expenditure of several billions of dollars in absolutely unnecessary generating plants and transmission lines. . . .

"This Department, the Department of the Interior, has always coveted the good reputation enjoyed by the Rural Electrification Administration in Congress and seeks to bring it under its domination just as it is now attempting to subjugate the Federal Power Commission, a regulatory agency of the Federal Government. Interior looks upon itself as the Federal agency that must have complete control over Federal activities and regulations relating to the generating, transmission, and distribution of power. Right now the Department of the Interior is quietly laying the groundwork for an eventual attempt to take over regulatory jurisdiction of the petroleum and natural gas industries, and it may be expected that the Department's pattern of operation may well follow a similar backdoor method for these great resources as has been followed in the case of their ruthless effort to socialize another great natu resource—electric power.

"What it cannot do directly, it d by stealth and indirection. When Congress said "No" and thereby thw ed the Department's ambitious sch to build needless and wasteful duplic ing electric facilities in my section the country, it went underground is now using the good name of the R Electrification Administration as front organization. . . .

"This is not, however, an issue t involves my section of the country al The Southeast and the Northeast well as other sections of the country deeply involved with the present atte of the Department to shape policies t will be applicable all over the Nati To realize the extent to which the D partment has already moved into East one needs only to familiarize h self with the contents of the 1951 bud document. . . . "

SPA Funds

The obligations undertaken by S in entering into these leasing, operat and power purchase agreements with super-cooperatives are made possi only by use of a revolving fund, kn as the "continuing fund" of $300,0 which was granted to SPA by Congr While this sum of $300,000 seems nocent and innocuous enough, it i fact limited only by the gross rece of SPA. The appropriation prov that the fund be kept at a level of $3 000, therefore so long as SPA money into the Treasury, the Treas in turn replenishes the fund to ma tain the $300,000 level. Through use of this fund SPA in fact subsid the super-co-ops in the operation of steam plants. The various compa of the southwest have appeared be the House Sub-Committee on Inte Department appropriations protes the use of this fund for the purp heretofore outlined, and have asked Committee to clarify and define the which may be made of the fund.

As you doubtless know a genera plant is being built near Palmyra the northeast corner of Missouri b power cooperative; one is being b at Poplar Bluff in the southeast. W the advent of the plant in central M souri and the one in northwest Miss and with the completion of the tr mission lines incident to all of t plants and the dams in Arkansas,

(*Continued on page* 60)

Public Utility Financing in Canada

By Alan Gordon
Director, Royal Securities Corp. Ltd.

A paper presented at the Accounting Convention of the Canadian Electrical Association, Montreal, Canada, October 12-14, 1949

SINCE the end of World War II we in Canada have enjoyed a period of tremendous industrial progress, and in view of the vast resources of our Country there seems to be every reason to expect this trend toward industrialization to continue. Much of our prosperity in the past four years is a direct outgrowth of the disruption caused by war, which enabled us to put our material and manpower to work and to export a very large part of our production. We are now one of the most important industrial nations and with the stimulus that has been provided we have every reason to look to the future with confidence.

Dollar Shortage Problems

The current shortage of dollars among our traditional customers is creating one of the most difficult problems this country has ever had to face. However, I do not think we should be too alarmed. The evidence is very strong that there was a meeting of minds at the Washington Conference and that major differences have been resolved and compromises made. The readjustment period may last some time and be quite painful to some in this country as well as in the United Kingdom and the United States. But adjustments had to be made soonor or later. If this be true, there are better grounds today for optimism than there have been for a very long time.

Canada's New Resources

Offering promise for the years ahead there have been some highly important developments in our national economy, including the discovery of large oil resources in the West, and iron ore and titanium in the East which are bound to have a great bearing on our future. Then, too, the continued expansion that has taken place in the public utility industry since 1945 has contributed a great deal to our stability and there is no indication that this growth is merely of a temporary nature. As the financing of the electric utility industry represents a very important segment of the investment dealer's business, I am glad to have this opportunity to make a few observations on some aspects of the industry from the point of view of the investment dealer.

First of all, I would like to refer to capital structures. Among electric utility companies mortgage debt is of prime importance and today usually forms upwards of 50 per cent of capital structure. The bonded debt, as a general rule, consists of one first mortgage running up to twenty or twenty-five years, sometimes of the open-end type or sometimes with a limitation on the amount of bonds that can be issued under the trust deed. A company may, therefore, issue bonds from time to time under the same mortgage and when this occurs the different issues are designated in some way, for example Series A, Series B or 3½ per cent Series due 1967, 3¾ per cent Series due 1972, etc.

Net Fixed Assets Vs. Bonded Debt

In assessing the merits of a first mortgage utility bond the investor is very interested in the relationship between the net fixed assets and the bonded debt. A comparison of the mortgage debt to the net assets which are actually pledged under the mortgage and upon which you are allowed to earn a fair return in a regulated business, is a simple way of assuring that the debt is being limited to what it should be, *i.e.*, a percentage of the mortgaged property that is in useful form.

While a limit of 60 per cent used to be a widely accepted standard for high-grade bond issues, the tendency in Canada in recent years has been to go considerably above this figure, depending upon the physical characteristics of the assets and the type of operation carried out. Unlike industrial companies, a low ratio of current assets to current liabilities is not considered particularly detrimental and we are not likely to find large net working capital positions among utility companies.

Additional first mortgage debt is generally limited to a percentage of new property acquired, which percentage may run as high as 75 per cent. This figure, however, is considered a maximum to provide for emergencies and we would not expect to see it utilized unless absolutely necessary. In recent years the percentage limitation in trust deeds has tended to go lower and 66 2/3 per cent is not uncommon practice today. The right to issue additional debt is invariably tied in with interest coverage and most trust deeds require that total proposed interest requirements shall have been covered at least twice over some selected period preceding the issue of additional bonds.

Institutional Investments

Institutional investors look for a higher coverage under existing low rates of interest and few companies would have difficulty in showing fixed charges earned three times or more in terms of current interest rates. Another provision that is sometimes included is one requiring the company to maintain the investment in plant by allocating a percentage of gross revenue to maintenance and depreciation. A modest sinking fund can be considered a necessity and institutional investors, particularly, insist on this under prevailing interest rates.

Although not widely used, other forms of debt such as general mortgage bonds, debentures and notes will on occasion be found in the capital structures of our electric utilities. Such financing might be advantageous in modest amounts when it is felt that the prior security cannot be increased without impairing its quality and hence affecting its interest rate. Also, if a company has a debt retirement program that would justify borrowing through notes or debentures on a short-term basis, it is possible that lower-cost money could be obtained than through a mortgage issue under certain market conditions.

Preferred Stock Financing

In addition to raising funds through the sale of debt securities, electric utility companies frequently finance part of their capital requirements by issuing preferred stock. Although much more costly than money obtained from bonds, it is nevertheless considerably cheaper

(*Continued on page* 50)

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(*Continued from page* 47)

than the cost of an issue of common stock. The use of preferred stock makes available a source of funds from a large investment market that is not interested in the low return obtainable on high quality bonds and cannot afford to accept the risks that are inherent in common stock.

Earnings Most Important Factor

Another advantage of the use of preferred stock, although I believe of much less importance today than in the past, is that funds obtained in this manner do not affect the control of the common stockholders, the majority of preferred stock issues being non-voting except when dividends are in arrears. It is not easy to define any standards that the investor in preferred shares seeks, earnings over a period being the most important factor. I should think that a coverage of at least twice the preferred dividend requirements would be desirable and that the common stock investment should at least equal that of the preferred stock to create a good quality issue.

It will be seen then, that in the electric utility industry a large proportion of the investment is provided through senior securities. The effect of this should be to add to the attractiveness of the common stocks. In spite of the fact that regulation limits the overall return, the amount available for common shares should be ample after taking care of the lower-cost prior issues.

Appropriate Capital Structure

It has been suggested that an appropriate capital structure in this field would be 50 per cent bonds, 25 per cent preferred and 25 per cent common and one can readily appreciate the high leverage available to common stock on such a capitalization as compared with the majority of industrial companies. However, in spite of the amounts that have been expended by the industry since the end of the war, so far very little of this capital has been provided through the sale of common shares.

A study of the capitalizations of eight operating electric utility companies, the shares of which are listed on the Montreal Stock Exchange or the Montreal Curb Market, shows that six of them have preferred stock issues upon which quotations are readily found and from which we can get a fair indication of what investors will pay today for this type of investment. The yields on these preferred stocks range from 4.19 per cent to 5.10 per cent (as at September 30th) and the average yield is 4.71 per cent. In some instances there are preferred shares outstanding that are non-redeemable or that are selling above their redemption prices and because these special factors affect the yield, they have been excluded.

At the same date, six common stocks of these companies were selling to yield from 4.87 per cent to 6.95 per cent, the average being 5.86 per cent. Two of the common stocks in the group can hardly be considered typical because of prospects of being taken over by governmental bodies. While quotations on the first mortgage bonds of all eight companies vary somewhat due to floating supply, operation of sinking funds and different maturity dates, it would be safe to say that any of them could finance through new first mortgage debt at from 3¼ to 3¾ per cent under current interest rates for this type of security. Rates on general mortgage bonds, debentures or notes might run anywhere from 3 to 4½ per cent, depending principally on the credit rating of the borrower and the length of term of the borrowing.

Rates of Return

To summarize them, we find that the rate of return under present market conditions of the various securities which make up the capital structure of the eight companies is approximately as follows:

First mortgage bonds—3¼ to 3¾ per cent
Other debt—3 to 4½ per cent
Preferred stock—4.19 to 5.10 per cent
Common stock—4.87 to 6.95 per cent.

These rates explain in a very large measure why the post-war expansion program of the industry has to date been financed mainly by the sale of debt securities. It is only natural for companies to seek capital at the lowest possible cost and the difference in cost between borrowed and equity capital, when the corporation income tax factor is considered, is very marked.

At the end of their 1948 fiscal periods, the composite capital structure of the eight companies referred to above was made up approximately as follows: first mortgage bonds 51.66 per cent, other debt 3.36 per cent, preferred stock 12.04 per cent, common stock and surplus 32.94 per cent. The ratio of first mortgage bonds to the net book value of fixed assets amounted to about 61.2 per cent and this figure would be considerably higher if property write-ups and intangibles were eliminated. Assuming that these are typical companies, the inescapable conclusion that one must draw is that if the industry is going to maintain the strong financial position that it has enjoyed in the past, much of its future capital requirements will have to be raised through the sale of capital stock.

Taxation Policy Problems

Perhaps it would be well for us to consider some of the principal reasons why stock financing, particularly common stock financing, has been such a problem during this latest period of growth. Most important, I believe, is our taxation policy which makes the cost of equity money so expensive to companies. With 40 per cent corporation income taxes, a common stock put out at a yield of 6 per cent requires earnings of 10 per cent to pay the taxes and the dividend. Viewed from the standpoint of the investor in the high-income group, personal income taxes have so reduced the net yield on all investments that the difference between what he retains from a high yielding stock and from the highest grade government bond simply does not justify the risk in buying equities.

Middle Income Group Savings

Prior to the war, our large middle-class group was a substantial source of equity capital. We find today, however, that taxes plus much higher living costs permit this group to save very little other than through life insurance and pension plans. The result is that the bulk of this group's savings is handled by institutional investors and finds its way into the higher-grade issues. Other important factors contributing to the high cost of equity funds would include the attitude of governments, rising operating expenses and investor fear concerning the industry's ability to earn a return on new construction built in an inflationary period.

If the future financing of the electric utility industry is not to be seriously handicapped it may be advisable for us, whose business is the marketing of its securities, and you, who will be concerned with the maintenance of its sound credit, to give some thought as to what steps can be taken to build up a ready market amongst individual investors for

the industry's securities. While institutional investors such as insurance companies, banks, trust and investment companies have been, and will surely continue to be, large buyers of senior issues so long as good financing practice is followed, it is not in this direction that our efforts are needed.

Such institutions are well-informed and I believe the relations between them and the industry are about all that could be desired. Rather, our concern lies with the large group of individuals who today have a record amount of money in savings accounts across the country and who are potential investors, although in relatively small amounts. This group offers an unparalleled opportunity to supply funds for a large part of our new capital requirements if we can obtain its confidence and develop an economical means of selling it. Several factors have tended to discourage the investment dealer from cultivating this field in recent years, not the least important of which has been the inadequate spread that has been available on underwritings.

If it is desirable to seek the support of investors and potential investors then possibly the industry should consider telling its story through continuous national advertising in newspapers, magazines and financial publications. The great Bell System and the railroads in the United States and the pulp and paper industry in Canada are amongst corporate groups that have been following this practice for some years. The best prospective investors for any company are usually found in or near the area served and include customers and employees.

Use of Annual Reports

Public relations therefore can be important financially with this group and it should be kept well informed of all new company developments that may affect it and the community. Annual reports can be a useful means of disseminating information about a company provided they are presented in an interesting and readable manner. Such reports, as well as going to shareholders, might be given a wider distribution amongst employees, customers, financial institutions, investment dealers and stock brokers.

Interim reports are helpful to security dealers and highly appreciated by shareholders. While not widely used at present, more and more companies appear to be adopting them. In the field of taxes, a very encouraging step has recently been taken by Ottawa in allowing individuals a credit against income tax of 10 per cent of common stock dividends. If this is at last recognition of the iniquities of double taxation, then it may not be too much to hope that it will be carried even further and also extended to other classes of stock on which the earnings have previously been subjected to corporation income tax.

Hand in hand with whatever steps might be taken by the electric utility industry as a whole, and by individual companies on a local level, the investment dealers should turn their attention to developing this large potential market and to rebuilding the contacts that have been neglected due to depletion of staffs and easy selling conditions. It will be painstaking work and will have to be accomplished through an elementary long-range educational program that will require much patience and be highly unremunerative for many years.

The ultimate benefits, however, cannot be measured in dollars and cents—here is a large new group of potential capitalists that should have a stake in free enterprise in this country and that can be made a tremendous bulwark against the threat of communism. Because of safety and stability, no field is more suitable in which to start than the utility field.

While many of these remarks may seem more applicable to the larger companies in the industry, we must remember that in our rapidly expanding economy the small companies of today will be the big companies of tomorrow. It is just as important to formulate a carefully thought out, long-term plan for financing as it is to have engineering plans prepared well in advance to meet the increasing demands for service. Before concluding I should like to draw your attention to something well known to you which, because of its importance, should be kept in mind.

The industrial growth of this country has in the past, and will in the future, be closely tied in with the development of electric power. From 1929 to 1939 average monthly output of central electric stations rose from about 1.4 billion kwhr to 2.3 billion kwhr, an increase of 900 million kwhr. From 1939 to 1948 output rose from 2.3 billion kwhr to 3.7 billion kwhr, an increase of 1.4 billion kwhr. These figures provide an excellent index of our increased prosperity and closely parallel the growth in our gross national product—the value of all goods and services produced in the country—which rose from just under $6 billion in 1929 to about $15.4 billion in 1948. Thus, if the past is a guide, the future prosperity of Canada must be tied to the growth of the electric power industry.

Frank Watts Awards Offer Prizes for Farm Electrification Promotion

FIVE cash awards totaling $1000 to be given annually by the *Farm Journal* and administered by the EEI have been established as the Frank Watts Awards to "stimulate the promotion and sale of electrically operated farm equipment as a means of improving agricultural productive efficiency."

The cash prizes and accompanying plaques will be given for the first time at the 1951 EEI Sales Conference for activity in 1950 "for excellence in promoting farm electrification as a productive force for better farming and better living." First and second prizes of $300 and $250 respectively, and three third prizes of $150 each will go to the farm departments of electric operating companies, while the plaques will be awarded to their companies.

Frank Watts, for whom the awards are named, is recognized as one of the early leaders in the promotion of farm electrification. His speeches and writings are widely known throughout the industry in which he has been active for more than forty years. He is now associated with the *Farm Journal* where he continues to devote his time and attention to the advancement of the cause of farm electrification.

The Frank Watts Awards will be administered by the EEI Commercial Division under the jurisdiction of the EEI Prize Awards Committee. The judges will be selected by the chairman of the Commercial Division General Committee, the chairman of the Farm Section, and the EEI Commercial Director.

Entries for the 1950 Frank Watts Awards, to be presented in April 1951, must be received at the offices of the EEI on or before February 1, 1951.

EEI Commercial News Briefs

By Harry Restofski

Chairman, Commercial Division General Committee

EACH of the 19 committees comprising the Commercial Division has been at work on projects planned for this year. Two new committees—a Rural Youth Committee and a Residential Heating Subcommittee of the Commercial Division General Committee—have been organized recently in recognition of the increased interest shown by the industry in these two fields.

Planned Lighting Program

"The Facts of Light," a 32-page booklet illustrating successful Planned Lighting campaigns carried out by electric utility companies, was released last September. The book evoked much favorable comment and brought forth many requests for samples of the Planned Lighting materials which were described therein.

Also released last September were two colored mailing folders especially designed to show service station owners the benefits to be gained from Planned Lighting installations.

The new Planned Lighting Promotional Committee, under the Chairmanship of Joseph Schuchert of Duquesne Light Company, Pittsburgh, Pa., is now organized, with nearly all of the regional chairmen appointed. Each region in the country is represented by a leading person in the lighting promotion field.

Currently the various lighting committees of EEI and the Better Light-Better Sight Bureau are planning the production of a new series of booklets and mailers for the five phases of the Planned Lighting Program. Plans call for the full explanation of the new materials at the Sales Conference in April.

All-Electric Kitchen Program

Over 125 companies have now utilized the materials made available last February in the All-Electric Kitchen Program. More than half a million copies of the "Kitchenizer's Digest" have been distributed by electric utility companies, in addition to using 90 prints of the 16 mm color motion picture "The Constant Bride." A second phase of the program is now being planned by the EEI Electric Kitchen and Laundry Committee.

Commercial Cooking Activity

"Dollars or Doughnuts," a brochure citing successful promotions in the commercial cooking field and pointing out the vast potentialities existing in this market, was released by the Commercial Cooking Committee in October. As a follow-up to the presentation book, the committee is working on an extended promotional program for the commercial cooking field.

Data sheets containing information on specific outstanding commercial cooking installations are being prepared and will be ready for distribution in the early part of 1950. The data sheets will be made available on a subscription basis.

A commercial Cooking conference will be sponsored by the Institute in conjunction with the National Restaurant Association's Convention to be held in Chicago on May 23-26, 1950.

"Patterns for Parties"

This 32-page, three-color booklet containing more than 100 novel ideas for home entertaining was made available recently. More than 115,000 copies have now been purchased by the electric utility companies who have found the booklet suitable for distribution at meetings of both adult and teen-age groups. Miss Marguerite Fenner of the Pacific Gas & Electric Company has prepared two lectures which may be used at meetings where "Patterns for Parties" is to be distributed. Copies of these talks may be obtained by writing directly to Miss Fenner at San Francisco. The booklet itself is available through EEI headquarters.

New Range Booklet

A new booklet, "Carefree Electric Cooking," replacing the popular recipe book, "Meals Go Modern Electrically," is now being prepared by the Home Service Committee, EEI. The new book will contain not only many carefully selected recipes but also general instructions on the use of the electric range. This production will be suitable for use as an instruction book for new range owners as well as a recipe book. It is expected that the book will be available for distribution in February at which time sample copies will be sent to all companies.

Sales Aids Catalogue

A catalogue containing a comprehensive list of sales aids available to electric utilities from national sources was reproduced and distributed recently. The catalogue was compiled under the direction of Ralph P. Wagner, Commercial Manager of the New York Power & Light Corporation, for use in connection with a presentation given before the Sales Executives Conference of the Association of Edison Illuminating Companies. It is hoped that the catalogue will prove helpful in avoiding costly duplication of materials which are already in existence and which may be obtained from national sources. A yearly revision of the catalogue will be made by EEI in order to keep it current.

Street Lighting Report

The Street Lighting Coordination Committee has recently compiled an up-to-date report on Street Lighting activities throughout the industry. The information was gathered by means of a questionnaire to which 104 utilities responded. Copies will be sent to all EEI member companies.

Farm Section Activities

The existing need for a layman's handbook of the application of electricity on the farm is now being filled by the Farm Section. The handbook, now in preparation, will include illustrations of each application, specifications on its use and a list of companies manufacturing the equipment. Also, a complete reference list for farm electrification information will be included. The handbook has the endorsement of the Extension Service of the U. S. Department of Agriculture and the Department of Vocational Agriculture, U. S. Office of Education.

To supplement the Farm Electrification Handbook, a set of colored slides is being prepared illustrating the various phases of farm electrification. It is hoped that these slides will form the nucleus of a slide library for each rural service manager.

(*Continued on page* 60)

Sixteen EEI Resuscitation Medals Awarded In 1949 to Electric Light and Power Company Employees

By Mae B. Woods

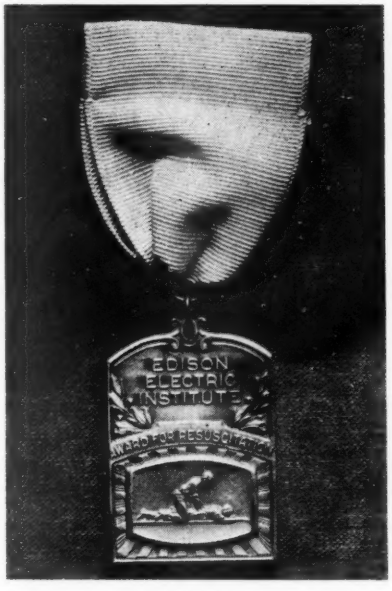
Secretary, Committee of Judges, Edison Electric Institute Medal

SEVENTEEN men are alive today because of the quick and intelligent actions of electric company employees, who, in 1949, thereby earned EEI Awards for Resuscitation. Each of the 16 presentations of the EEI Medal made in 1949 represents a life, and in one instance two, saved by the skilled administration of artificial respiration by an alert electric company worker. By the end of the year the total number of awards made since the EEI Medal was authorized in 1933, had grown to more than 270, including the 16 awarded in 1949.

The unhesitating response in an emergency situation shown by each Medal winner of this past year, together with the events leading up to the accident, are briefly described in the following pages. Each account is a tribute to the resourcefulness and careful training of the industry's electrical workers whose duty it is to maintain the nation's electric service under any and all conditions.

Behind the Award for Resuscitation, and each man who has received it, there is a long period of training and retraining in the techniques of artificial respiration for just such emergencies as are described below. The many hours spent in regular drills are well repaid by the 17 lives saved.

Although many of the cases recounted below are true "accidents," several can be attributed to a slackening of safety precautions by the injured man himself or on the part of his fellow workers. It is these cases where lives are put needlessly in jeopardy which demonstrate that the electrical worker's guard cannot be relaxed for one moment. After the fact, these cases can only serve as painfully taught object lessons which it is hoped may inspire others to a proper regard for safety and caution in dealing with electrical equipment in similar situations.



The EEI Medal

An Award for Resuscitation is made during the year whenever the committee of judges approves the presentation on the basis of the facts submitted in an application for the award by an electric light and power company. Employees of all electric companies in the United States are eligible for the award. The committee of judges includes Wills Maclachlan, Toronto, Canada; J. M. McCann, Boston, Mass.; W. R. Smith, Public Service Electric & Gas Company, Newark, N. J.

The EEI Medal, which is the symbolic token of the Award, is itself a link with the history of the electric industry. For, contained in its metal composition, there is some of the copper from the original mains laid down in New York City by Thomas A. Edison as part of the first underground system in the world for supplying electric current.

Citations for the Award handsomely inscribed and signed by the President of the Edison Electric Institute are also presented with each medal. For those who have given valuable aid in a resuscitation in which the Medal was awarded, Certificates of Assistance are also awarded. Miniature medals and certificates are awarded to each line crew member with the presentation of the Medal when it is judged that through the crew's teamwork each member shares equally in the responsibility for a successful resuscitation.

Brief statements of the circumstances leading to the awards made in 1949 follow:

SIDNEY A. MARTIN, JR.

Narragansett Electric Company

On August 11, 1948, a line crew was replacing a 35 foot creosote pine pole in Providence, R. I. The new pole was set about 13 feet east of the old one which was being stripped of material before removal. All 4000-v primary wires which had been tied in on the new pole and untied at the old pole, were lying loose on the crossarm in line hose. First Class Lineman Sidney A. Martin was near the top of the old pole pulling the primary crossarm off the through-bolt while Lincoln Tillson, apprentice lineman, was standing by to help Martin in lowering the arm to the ground. When the support of the crossarm was removed a 4000-v wire sagged, causing one length of line hose to slip back. The exposed wire came in contact with Tillson's forehead. Martin heard the flash, instinctively pulled the wire clear and moved down the pole to where Tillson hung unconscious, his face having taken on a bluish cast.

Martin moved Tillson into position and began to administer pole-top resuscitation. Within a few minutes Tillson recovered consciousness and Martin, with the help of Linemen Robert Fraime and Mervyn Allen, lowered him to the ground. By the time the ambulance and doctor had arrived, Tillson was breathing without assistance. He was removed to the hospital and returned to work in 42 days.

The presentation of the EEI Medal to Sidney Martin, made by executive vice president Walker Mason of The Narragansett Electric Company, was witnessed by the entire line crew involved in the rescue, along with supervisors and department heads and

SIDNEY A. MARTIN, JR. (center), accepts the EEI Medal and Certificate from Vice President Walker Mason, The Narragansett Electric Co. Left to right are: Safety Manager Frederick G. Harriman; Lincoln B. Tillson, who was successfully resuscitated; Mr. Martin; Mr. Mason; and Southern District Safety Supervisor John H. Smith.

a number of executives of the company. An account of the ceremony was carried in the *Providence Journal,* January 29, 1944.

PERRY A. DICKINSON

Gulf States Utilities Company

On the morning of August 17, 1948, a line crew of the Gulf States Utilities Company in Lake Charles, La., was preparing to install a new 4/0-2300-v circuit from the Ann Street Substation to East Broad and Bilbo Streets to relieve the overloaded condition on a feeder. Foreman Jack Killough sent his two first class linemen Harvey Johnson and Perry Dickinson to cover the primary conductors with line hose and hoods, and to disconnect the primary risers. Returning to normal position after having adjusted the line hose on a primary to his right, Johnson's left arm brushed against the tip end of a 4/0 connector which was unprotected, having caught on the flap of a section of line hose. He lost consciousness when a 2300-v current passed from his left arm, through his body and both feet.

Dickinson heard Johnson groan and immediately reached over to knock his fellow worker's arm clear of the connector, pulled him into position and began pole-top resuscitation. C. N. Hall, apprentice lineman, went up the pole to assist Dickinson. He was followed by Sammy Bono, service foreman of the company who was driving by just as the accident occurred. While C. E. Torrans, truck driver for the crew, was radioing for help, R. W. Derby, helper, ran to the truck and with the assistance of L. C. Kent and J. Van Winkle, prepared the first aid equipment. Dickinson meanwhile had succeeded in partially reviving Johnson and with the aid of Bono and Hall lowered him to the ground.

Johnson was taken to the hospital and released several hours later. He was able to return to work within a month.

At a dinner meeting attended by approximately 100 employees on August 26, 1949, George R. Fulton, vice president and manager of the Lake Charles division, Gulf States Utilities Co., presented Perry Dickinson with the EEI Medal and Certificates of Assistance to Jack Killough, C. E. Torrans, J. Van Winkle, Sammy Bono, R. W. Derby, C. N. Hall and L. C. Kent. The *American Press,* Lake Charles, La., carried an article describing the ceremony.

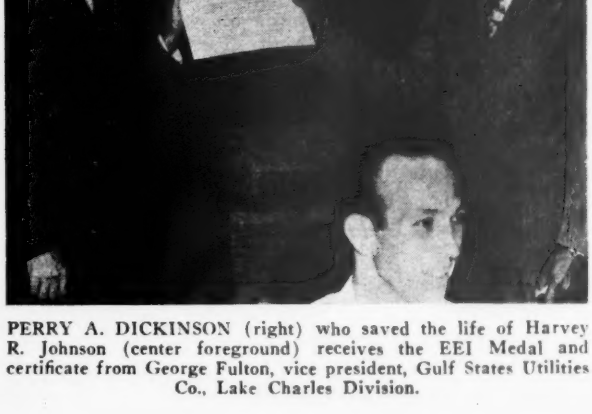
OBERT WICKUM

Iowa-Illinois Gas & Electric Company

Lines which were still energized but supposed to be dead were the unseen dangers that faced an Iowa-Illinois Gas & Electric line crew of the electric distribution department on the morning of June 29, 1948, at Browning Field Park, Rock Island, Ill., when they prepared to remove temporary lines erected for the Moline Centennial Celebration, and to rearrange permanent lines serving the football-baseball lights.

Robert Ostrander, apprentice lineman, first discovered the "live" circuit on a pole when he took the full force of 2300 volts from the single-phase, primary circuit through his body from right shoulder to left thigh. The initial shock threw him clear of contact. Fellow lineman, Obert Wickum, was the first to reach Ostrander on the pole and immediately began resuscitation by the pole-top method. After 4 to 5 minutes Ostrander stirred and several minutes later breathed without assistance. Linemen Raymond Hicks and Henning Thomsen assisted Wickum in lowering the injured man from the pole. Ostrander was given first aid treatment for shock by doctors at the scene and was later treated for burns at Moline Public Hospital.

Some 140 members of the United Recreation Club witnessed the presentation of the EEI Medal to Obert Wickum at Davenport, Ill., February 22, 1949. C. P. Conrad, president of the Iowa-Illinois Gas & Electric Company, made the presentation. The Iowa-Illinois *News-Caster* of March, 1949, carried an account of the ceremonies.



PERRY A. DICKINSON (right) who saved the life of Harvey R. Johnson (center foreground) receives the EEI Medal and certificate from George Fulton, vice president, Gulf States Utilities Co., Lake Charles Division.

OBERT WICKUM (left) receives the EEI Medal from C. P. Conrad, president of the Iowa-Illinois Gas and Electric Company, at presentation ceremonies in Davenport, Ill., February 22, 1949.

W. T. VARNADORE'S GANG hold citations which accompany the replicas of the EEI Medal each one has received. (Left to right). Front Row: W. R. OTT, J. B. SWYGERT, M. G. JACOBS, M. W. FRESHLEY; Standing: T. L. RICE, BENJAMIN YOUNG, D. L. TROUTMAN, Bryan C. Fetner with "gang's" award, D. R. TOMLIN and W. T. VARNADORE.

W. T. VARNADORE'S GANG

South Carolina Electric & Gas Company

From no apparent cause, Bryan Fetner, apprentice lineman, while working on a primary distribution pole in driving wind and rain, restoring service, slumped in his safety belt unconscious. Facing him on the opposite side of the pole, First Class Lineman M. G. Jacobs moved quickly to straighten him and shouted above the wind for help from the crew below. Linemen J. B. Swygert and W. R. Ott started running from 25 feet away and climbed the pole together. Ott came up the pole under Fetner, secured his safety belt and seating Fetner on the belt began to apply pole-top resuscitation. Swygert removed the injured man's hooks as Jacobs aided Ott in the resuscitation. At least 8 minutes elapsed before Fetner began to breathe.

With blocks and rope Fetner was lowered from the pole. Ott and Swygert, with their safety straps about the pole, guided the lowering, stopping twice in the descent to restore the breathing of the injured man. Twice again on the way to the hospital artificial respiration was applied by D. R. Tomlin, assistant superintendent, when Fetner ceased breathing. It was at least 20 minutes from the time of the accident before Fetner was fully able to breathe for himself. The examining doctor could find no evidence of burns upon the victim who was released from the hospital the following day.

The transformer pole at Wheat and Walker Streets, Columbia, S. C., on which the accident occurred, had three wires of a 4600-v three-phase primary circuit dead-ended to both sides of a double arm. The wires that had burned down on August 30, 1948, prior to the accident, had been cleared by cutting the jumpers over the double arm. Jacobs and Fetner both wore rubber gloves which were wet from the rain encountered at a previous job. The men recall a flash of lightning so close that Jacobs said he felt a shock although not touching anything at the time. It was at this moment that Fetner slumped in his belt. After the accident as the repair continued, Swygert and Jacobs felt additional shocks. They checked the secondaries for back feed, but none was found. Three of the six pin-type insulators supporting the jumpers over the double arm, were attached to live ends of the primary. These insulators were considered to have a low rating for 4600 volts. After the insulators were changed no more shock was felt.

On November 4, 1949, at a supper for the Columbia Line Department, the men of W. T. Varnadore's gang received miniature EEI Medals and citations for the successful resuscitation of Bryan C. Fetner. The men thus honored were: W. T. Varnadore, D. R. Tomlin, W. R. Ott, M. G. Jacobs, J. B. Swygert, D. L. Troutman, M. W. Freshley, Benjamin Young, and T. L. Rice. An account of the presentation made by H. K. Walker, superintendent of distribution, appeared in the December, 1949, issue of the *GET News*, South Carolina Electric & Gas Company.

W. S. HILLIS

Texas Power and Light Company

On the morning of October 28, 1948, W. S. "Red" Hillis, local representative in Irving for the Texas Power & Light Co., was driving north on Britain Road. As he approached a service station, he noticed that

W. S. HILLIS (wearing the EEI Medal) receives the congratulations of W. G. Smauder, Executive Department, Texas Power & Light Co. Left to right: A. H. Witherspoon, assistant to district manager; Mr. Smauder, R. Duke, distribution superintendent; H. S. Ware, manager, McKinney District; Mr. Hillis; T. D. Hughston, safety engineer; C. J. Rutland, manager, Safety Department.

W. R. DISHONG (second from right) wears the EEI Medal which was presented to him by W. N. Johnson (right), vice president in charge of operations, Southern California Edison Co. Left to right: C. A. Fischback, supervisor of safety; Howard Dumm, president, Pacific Valve & Pump Co.; R. Harris, the victim; Mr. Dishong and Mr. Johnson.

C. J. DARLAND (left) receives the EEI Medal from M. F. Gill, president, Kansas Gas & Electric Co.

the boom of a dragline which was being used to dig a hole for a gasoline tank, was dangerously near a 12,500-v line. He stopped to warn the dragline operator of the danger. As he stepped out of his car, he saw Albert Scott, an employee of the dragline operator, lying unconscious on the ground. Scott had been testing the air in the tires of the dragline when the metal boom contacted one phase of the three-phase, 12.5-kv line. As learned later, it had been several minutes since Scott had been shocked and he appeared dead.

Red Hillis began immediately to administer artificial respiration. Within five minutes Scott began to recover consciousness and in another ten minutes he was breathing without assistance. By that time an ambulance had arrived, and the victim was removed to a hospital where he was treated for second and third degree burns. In two weeks Scott was able to return to work.

On April 29, 1949, W. S. Hillis was presented with the EEI Medal by W. G. Smauder of the Executive Department, Texas Power and Light Company, at ceremonies held in Irving and attended by many of Hillis' fellow employees and officials of the company. The *Texas Utility News,* the company newspaper, carried an account of the presentation.

W. R. DISHONG

Southern California Edison Company

W. R. Dishong, in the course of his regular duties as a representative of Southern California Edison Company, walked into the office of the Pacific Valve and Pump Company, Long Beach, Calif., on the morning of October 20, 1948, and came face-to-face with an emergency situation that proved the value of his resuscitation training. Several minutes before his arrival, R. Harris, a machinist for the valve company, had been wiring a lathe from the back of a 3-phase sub-panel in a new electrical installation. Harris inadvertently contacted the 480-v circuit while kneeling on the concrete floor, and fell further into the panel making additional contact with his face. Fellow workers had pulled the main switch and were attempting artificial respiration when Dishong walked in.

Dishong turned Harris over to a prone position, freed his mouth of obstruction and instructed one of the valve company employees to administer artificial respiration. Dishong checked pulse rate and body temperature as Harris slowly regained consciousness. Twenty minutes after starting the resuscitation, Harris was breathing without assistance. A fire department ambulance squad removed the injured man to the hospital where he was treated for third degree burns.

W. R. Dishong received the EEI Medal on February 1, 1949, in a presentation made by W. N. Johnson, vice president in charge of operations of the Southern California Edison Company. The ceremonies held at Long Beach, Calif., were attended by the injured man, the president of the Pacific Valve and Pump Co., Howard Dumm, and officials of the Southern California Edison Co. Accounts of the ceremonies appeared in the Long Beach *Press-Telegram,* Feb. 2, 1950, and in the company magazine, *Edison News,* for February, 1950.

CHARLEY JOSEPH DARLAND

Kansas Gas & Electric Company

Charley Darland, journeyman electrician, was driving home from Oswego late Sunday afternoon, October 24, 1948. About one mile south of Strauss, Kan., he noticed a group of young people standing around a man lying on the ground. The man's clothing was on fire. Charley Darland jumped from his car and quickly extinguished the flames. A hasty examination revealed the man was not breathing so Darland started artificial respiration by the prone-pressure method. By the time an ambulance had arrived, the man was breathing normally. He was removed to a hospital where he was treated for burns.

The accident occurred as the injured man, Raymond Jenkenson, was shaking pecans out of a pecan tree. His foot slipped and brushed against a 7200-v, single-phase rural line conductor. As he fell he grabbed the conductor with his hands. According to witnesses he was in contact for from three to five minutes before falling some twenty feet to the ground. It was shortly after he fell that Charley Darland arrived and saved Jenkenson's life. Jenkenson has fully recovered and is working on a farm near Girard, Kan.

Charley Darland received the EEI Medal from M. F. Gill, company president at the Neosho Plant employees' annual picnic. Stories of the successful resuscitation and subsequent presentation of the medal appeared in the company magazine, Central Kansas newspapers and was released by Associated Press for use throughout the nation.

VERNON B. STANLEY

Southwestern Gas and Electric Company

A Huntington line crew on the afternoon of March 17, 1948, was changing out bad crossarms and insulators on the Abbott-Waldron (Arkansas) 12-kv line. Linemen J. F. Floyd and Carl Walker were replacing broken suspension-type insulators on an H-type double dead-end structure. Turning in his belt, Floyd reached out under the outside and middle phases from his position on the pole to pull slack in the blocks attached near the center phase. In doing so his arm touched the jumper which sagged approximately 18 inches under the crossarm. Current passed through his body to his left foot and to ground via the pole ground wire.

Floyd turned over backwards, his safety belt released, and he fell to the base of the pole. Crew members rushed to his aid, removing his belt and climbers while Line Foreman V. B. Stanley gave artificial respi-

V. B. STANLEY (left), line foreman, Southwestern Gas & Electric Co., receives the EEI Medal from B. B. McCulloch, president of the Bureau of Safety.

P. H. Powers, president, West Penn Power Co., pins the EEI Medal on R. L. BURDETTE as fellow crew members, who were awarded Certificates of Assistance, look on. Left to right: E. K. COLSON; J. L. McVEY, F. T. KRISTOBEK; G. E. YOUNGST, Mr. Burdette and Mr. Powers

ration by the prone-pressure method. Six minutes later Floyd resumed natural breathing and was removed in the line truck to a hospital, where he was treated for severe burns and contusions.

B. B. McCulloch, Chicago, President of the Bureau of Safety, presented the EEI Medal to V. B. Stanley at an annual Executive Conference held in Texarkana, Ark., November 18, 1949. Accounts of the presentation ceremonies appeared in the *Northwest Arkansas Times*, Nov. 26, Greenwood *Democrat*, Dec. 1, and the company magazine, *The Southwestern*, Dec. 1949.

ROBERT L. BURDETTE

West Penn Power Company

A job ticket marked "Add Third Wire to Connect Range" directed a West Penn line crew to a location on the Gastonville-McChain Road on the morning of October 6, 1948. Sub-foreman E. K. Colson assigned each man his duties and prepared to string the wire. C. A. Crouser, First Class Lineman, was on a pole untying the secondary neutral wire in order to move it in to the pole position on the crossarm when his head came in contact with a 4600-v primary directly above him. His groundman J. L. McVey heard the sound of the contact, looked up and saw Crouser slumped back in his safety belt.

Called to the scene by McVey's shouts, Lineman R. L. Burdette climbed the pole immediately and used a handline tied around Crouser's chest to raise him to an upright position with the help of the men on the ground. Burdette applied artificial respiration by the pole-top method for approximately one minute before Crouser showed signs of life. Although unconscious, Crouser moved vigorously and had to have his arms fastened to his sides to prevent him from contacting the primary again. With Burdette to guide him, Crouser was lowered to the ground on the handline. Placed on a stretcher in the company truck, Crouser was given first aid and kept warm until he was admitted to the local hospital where he regained consciousness. Crouser was released from the hospital on the following day and returned to work 11 days later.

At a dinner held at the Monongahela Country Club, May 28, 1949, R. L. Burdette received the EEI Medal and the West Penn Distinguished Service Medal in a presentation made by P. H. Powers, president of the West Penn Power Company. EEI Certificates of Assistance and West Penn Distinguished Service Certificates went to fellow crew members E. K. Colson, W. H. Stickel, F. T. Kristobek, J. L. McVey and G. E. Youngst. The Monongahela *Republican*, May 29, 1949, and the *West Penn News*, May 1949, printed full accounts of the ceremonies.

ROBERT W. LAILHEUGUE

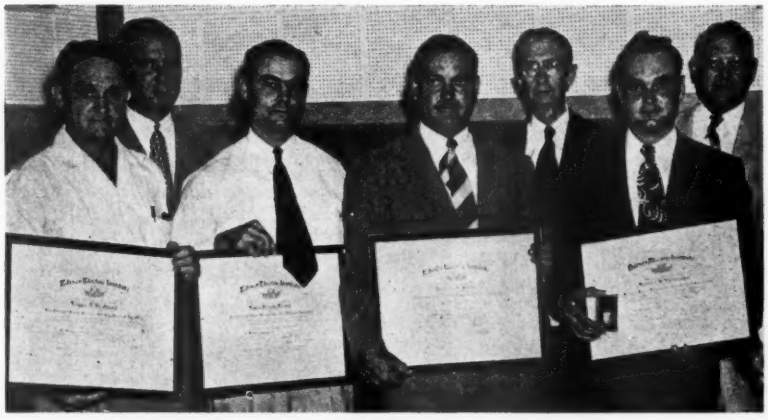
New Orleans Public Service Inc.

In the process of converting 4-kv to 13.2-kv primary on Josephine Street, New Orleans, December 1, 1948, two 15 kva and one 50 kva, 7620-120/240-v transformers had been installed on a new 50-ft pole to replace the bank of transformers nearby on the old pole. Connections had been made to the secondary bus from the 7620-v transformers and all normal safety measures observed, including de-energizing the secondary bus, using rubber protective equipment on the 4-kv primary wires and opening the 4-kv fused cutouts.

George Perriloux was standing on the crossarms on which the transformers were mounted working on the de-energized 13.2 kv primary with his safety strap around the primary crossarm. Pierre Hollier worked in the same position on the opposite side of the pole with his safety strap around the pole. From an undetermined cause, "B" phase conductor of a 4-kv primary feeder parted between the old poles and contacted the secondary wires below the primary. This energized the transformer bank where Perriloux stood and the short circuit opened the 4-kv substation circuit breaker.

Luther Smith, foreman of the line crew, saw a flash on top of the pole and noticed Perriloux hanging head down from the crossarm. He shouted to Hollier to go to Perriloux's aid, instructed Lineman R. W. Lailheugue to go up the pole to give assistance, and called the service desk to have the feeder held out. Before contact had been made with the service desk, the station operator closed the circuit breaker which again energized the installation and caused Hollier to lose consciousness from shock.

Lailheugue, meanwhile, climbed the old pole, changed from leather to rubber gloves, transferred to the new pole and approached the injured men. He noticed that Perriloux appeared to be breathing while Hollier was not. Securing his safety strap beneath Hollier, he touched him with his elbow to determine if his body was energized and then proceeded to administer pole-top resuscitation. Within 2 minutes Hollier breathed normally although unconscious. The injured men were lowered from the pole with the aid



ROBERT LAILHEUGUE (right) holds the EEI Medal and citation presented to him by H. E. Meade (right, back row), vice president, New Orleans Public Service Inc., who also presented Certificates of Assistance to (front row, left to right) E. McGEHEE; F. MESSA; and LUTHER SMITH. In the back row are (left to right): Clayton Nairne, assistant to Mr. Meade; L. L. Newman, general superintendent, distribution division, and Mr. Meade.

RUDY KELLY (left) receives the EEI Medal and citation from J. F. Bailey, vice president, Florida Power Corp.

of crew members F. Messa and E. McGehee and were removed to a hospital where they were treated for electric shock and burn. Both men returned to work within a short time.

Before all distribution division employees of New Orleans Public Service, Inc., on July 26, 1949, H. E. Meade, company vice president, presented the EEI Medal to R. W. Lailheugue and Certificates of Assistance to Luther Smith, F. Messa and E. McGehee. Newspaper accounts of the accident and, later, of the presentation ceremonies were carried in the New Orleans *Times-Picayune, Item* and *States*. A similar account appeared in the August, 1949, issue of the company magazine, *Electric Distribution News*.

RUDY R. KELLY

Florida Power Corporation

On the afternoon of November 9, 1948, Cecil Carey, working line foreman, and Rudy Kelly, apprentice lineman, were replacing wooden pin type insulators with metal insulators on a power pole north of Denham, Fla. Carey had just finished installing a new metal insulator on the south crossarm. As he straightened up, his left ear brushed against the armor rod clip of an uncovered 2400-v single-phase energized wire. There was a loud arc and Carey fell back in his belt, clear of the conductor.

Rudy Kelly immediately swung around, straightened Carey up and began pole-top resuscitation. Within a few minutes Carey was breathing without assistance and Wallace Rogers, groundman, threw up a bull line and assisted in lowering the injured man to the ground. There, Rogers and Kelly loosened Carey's belt, removed his hooks and applied burn ointment from the first aid kit. Several minutes later, the general foreman, who had been contacted by Kelly, arrived and took Carey to a doctor. The injured man was able to return to work the next day.

Rudy Kelly was awarded the EEI Medal, and Wallace Rogers was awarded the Certificate of Assistance at Florida Power Corporation's annual safety meeting on January 6, 1950. An account of the presentation made by J. F. Bailey, vice president, Florida Power Corp., was carried in the *Tarpon Springs Leader* and the company magazine, *Power Lines*.

R. L. FORSYTHE

Pacific Power & Light Company

On the morning of June 12, 1947, R. L. Forsythe, journeyman lineman, and William Gianelli, groundman, were making tests on three 100-kva ground-mounted transformers near Pendleton, Ore. Forsythe was removing the maximeters from the secondary side, having laid his metal order book on the concrete foundation. Gianelli bent down to pick up the book in order to write down information given him by Forsythe. As he straightened up, his head hit the primary 12-kv transformer lead, and current at 7200-v to ground passed through his head and out both his hands.

The shock threw Gianelli clear of the circuit. Forsythe immediately pulled the injured man off the concrete slab in order to get him in position to apply artificial respiration by the prone-pressure method. Within three minutes Gianelli was breathing without assistance. Shortly thereafter an ambulance arrived and removed Gianelli to a hospital where he was treated for shock, lacerations and burns. In two weeks he was able to return to work.

At a company meeting held in his honor, R. L. (Bob) Forsythe was presented with the EEI Medal by Fons J. Hughes, Pacific Power & Light Company safety director. An account of the presentation was carried in the Pendleton, Oregon, *East Oregonian* (Nov. 19, 1949) and the company magazine, the *Bulletin* (Nov., 1949).

E. F. Jeffe (right) vice president, Consolidated Edison Co. of N. Y., Inc., presents the EEI Medal to G. J. BERNARD.

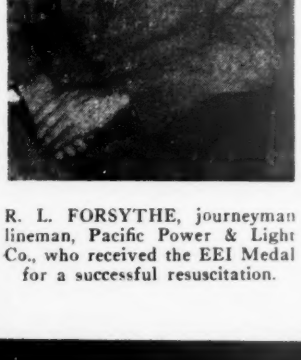
GEORGE JOSEPH BERNARD

Consolidated Edison Company of New York, Inc.

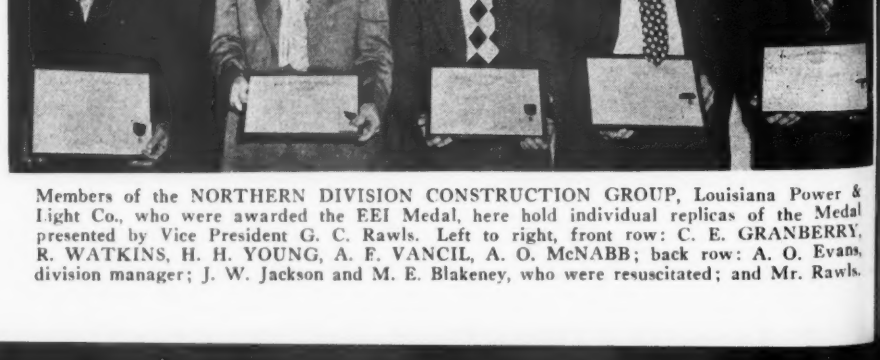
In the course of his duties as sales representative, George Bernard was in the vicinity of Avenue V and Haring Street in Brooklyn, where he observed a two-story frame dwelling with a metal roof being moved on a trailer especially designed for this purpose. The trailer was being towed by a ten-ton Mack truck and from his position, Bernard could see that the roof of the house was in danger of contacting the company's overhead primary wires. He shouted a warning to the driver, but before the truck could be stopped the roof had come in contact with the primaries, causing the house, trailer and truck to become energized.

Bernard immediately telephoned for a company emergency truck. Just as he completed the call, he heard someone call "Somebody is hurt!" Rushing to the side of the truck, Bernard found Dominic Perisco, the driver, and John Altobelli, helper, lying unconscious. In about seven minutes he had succeeded in reviving Perisco by application of prone-pressure resuscitation. Perisco had received a shock while trying to free his coworker who had contacted the electrically charged winch on the front of the truck.

Perisco was removed to a hospital for addi-

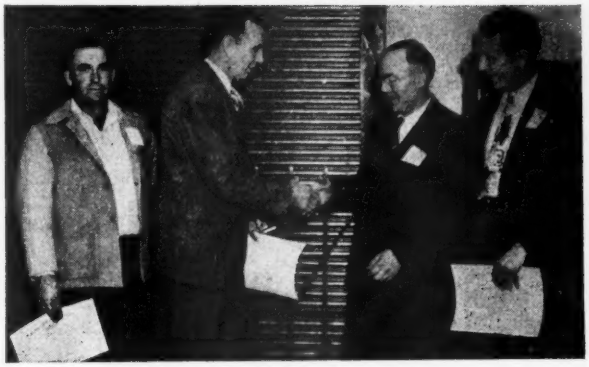


R. L. FORSYTHE, journeyman lineman, Pacific Power & Light Co., who received the EEI Medal for a successful resuscitation.



Members of the NORTHERN DIVISION CONSTRUCTION GROUP, Louisiana Power & Light Co., who were awarded the EEI Medal, here hold individual replicas of the Medal presented by Vice President G. C. Rawls. Left to right, front row: C. E. GRANBERRY, R. WATKINS, H. H. YOUNG, A. F. VANCIL, A. O. McNABB; back row: A. O. Evans, division manager; J. W. Jackson and M. E. Blakeney, who were resuscitated; and Mr. Rawls.

F. S. RUSSELL (second from left) receives the EEI Medal from D. C. Duncan (left) safety director, Kingsport Utilities, Inc., as J. J. POTTS (second from right), who was awarded the Certificate of Assistance, and J. E. Wright, general manager, look on.



Fred Clark (second from right) shakes hands with his rescuer, I. J. HALE, who received the EEI Medal. Holding their Certificates of Assistance as they look on are S. W. IVES (left) and GLYNNE CASTEEL (right).

tional treatment, and was able to return to work in three days. John Altobelli was pronounced dead after more than an hour of prone-pressure resuscitation and treatment by inhalator equipment which failed to revive him.

For his rescue work, George Bernard was presented with the EEI Medal by E. F. Jeffe, vice president of Consolidated Edison Company of New York, Inc. The company magazine, *Around the System,* carried a picture in the November 1949 issue and a story of the presentation.

NORTHERN DIVISION CONSTRUCTION GROUP

Louisiana Power & Light Company

Four men from a tree-trimming crew and a truck driver from a line crew had been recruited to help set a pole at the West Monroe Substation of the Louisiana Power and Light Co. in the early morning of August 19, 1948. Truck, pole and men were located under the busses of the 110-kv steel tower substation. Tree-trimmers J. W. Jackson and M. E. Blakeney were holding down the butt of the 45-foot gin pole which was attached to the winch line of a truck boom, when the top of the pole contacted the 110-kv buss overhead.

When the pole fell, automatically clearing them from the circuit, both men were on the ground unconscious and not breathing. Mechanic A. O. McNabb at once put Jackson in position and began prone-pressure resuscitation as Serviceman C. E. Granberry did the same for Blakeney. R. F. Watkins and A. F. Vancil forced open the tightly shut mouths of the victims and Vancil proceeded to clear Blakeney's tongue from his throat. H. H. Young came to the relief of McNabb, and D. H. Horn for Granberry, in performing artificial respiration on the victims. Blakeney was restored to natural breathing within 5 minutes of the start of resuscitation, but Jackson was worked on for 15 minutes before he could breathe without assistance. Both of the injured men were taken in an ambulance to the hospital in Monroe, La., where they were treated for electric shock and burn. Both men were able to return to work in 12 days.

The six members of the Northern Division Construction Group were honored at a dinner on December 16, 1949, when they were awarded the EEI Medal presented by G. C. Rawls, vice president of Louisiana Power & Light Co. These men, Andrew McNabb, Drury H. Horn, Richard Watkins, C. E. Granberry, Henry H. Young and A. F. Vancil, each received separate replicas of the medal and citations. Individual presentations were made by W. T. Hess, vice president and chief engineer; Howard Senyard, personnel director; Harold Deloney, assistant chief engineer; and A. O. Evans, division manager of the company.

F. S. RUSSELL

Kingsport Utilities, Inc.

Three linemen, all on the same pole, were installing a set of dead ends for primary metering during the conversion from 4 to 12 kv of a distribution line to the Clinchfield Quarry, Tenn., January 11, 1949. C. E. McNutt and F. S. Russell were on the same side of the pole. McNutt was shaping wire for the grooves of a dead-end clamp when his forehead contacted the energized conductor. Falling back in his belt apparently lifeless, he was prevented from dropping to the ground upside down in his belt because his climber became entangled in that of the third lineman, J. J. Potts.

Russell immediately changed his position on the pole to come up under McNutt and began to apply pole-top resuscitation. When McNutt began breathing regularly approximately five minutes later, he was lowered to the ground and first aid was administered until an ambulance arrived. McNutt was treated at the hospital for electric shock and burns and returned to work the following day.

At an employee safety meeting in Kingsport, Tenn., November 15, 1949, D. C. Duncan, system safety director for Kingsport Utilities, Inc., presented the EEI Medal to F. S. Russell and a Certificate of Assistance to J. J. Potts. The presentation ceremonies were reported in the Kingsport *News,* Nov. 23, 1949, and the company magazine, *The Illuminator,* for December, 1949.

I. J. HALE

Oklahoma Gas and Electric Company

Fiber plugs in the condenser tubes were being drilled out from inside the lower waterbox of No. 2 condenser, Horseshoe Lake Station, Harrah, Okla., on August 15, 1948. F. P. Clark, a mechanic, was seated in 6 to 8 inches of water on a metal stool in the waterbox drilling out the last plug with a 120-v electric drill when the drill twisted its own cord, damaged it and energized the ungrounded drill frame. S. W. Ives, a fellow mechanic, heard Clark's involuntary shout and quickly went to the manhole of the lower waterbox. There he saw Clark slumped forward on the stool with head and shoulders in the water. Ives pulled the plugs for the drill and extension lamps inside from their receptacles, and promptly entered the waterbox to remove Clark, aided by Glynne Casteel, results engineer, and Frank Roller, janitor, who arrived shortly afterward.

I. J. Hale, boiler room engineer, immediately applied prone-pressure resuscitation on the condenser floor. After 6 or 8 strokes of artificial respiration, Clark began to show signs of life and within two minutes of the time resuscitation began, he breathed without assistance. An ambulance called from Oklahoma City took Clark to the hospital where he was treated for electric shock. Clark returned to work nine days after the accident.

I. J. Hale received the EEI Medal for successful resuscitation at an OG&E Men's Club meeting in Oklahoma City, November, 1949, in a presentation made by H. B. Roach, Oklahoma Gas and Electric Company supervisor of safety education. Certificates of Assistance were awarded to S. W. Ives, Frank Roller and Glynne Casteel at the same time. The company magazine, *The Meter,* printed a full account of the accident and presentation ceremonies, in its December, 1949, issue.

The Electrical Metermen's Handbook

(*Continued from page* 35)

their names, for customers thousands of miles away from their own company service areas . . . committees directly benefit the industry as a whole, the members and their companies. But the ultimate and real beneficiaries of all committee activity are, of course, the industry's customers."

Members of committees bring to their assignments intelligence, a capacity for hard work, and a willingness to sacrifice their time in order to serve the industry. These qualities are given full range in every phase of Committee activity—in the exchange of experiences, the frank discussion of problems and solutions, the evolution of a course of action, and, finally, concrete achievement.

The six editions of the Metermen's Handbook demonstrate effectively that the personnel of the several Meter Committees and Meter Revision Committees have worked in the great tradition of the industry's cooperating groups.

EEI Commercial News Briefs

(*Continued from page* 52)

It is expected that three new sections for the Farm Electrification Manual will be issued in 1950. One section, "Dairy Stable Ventilation," is nearly complete and will be ready for distribution within a few weeks.

The newly organized Rural Youth Committee is preparing a booklet that will include the highlights of the best Youth Programs now being conducted by the electric operating companies.

A preliminary report on Farm Electrification Research conducted or contributed to by electric operating companies since Jan. 1, 1947, has recently been published and distributed. A revision of the material will be made and disseminated in 1950.

The bi-monthly bulletin, "Farm Electrification News," this year will place emphasis on articles dealing with load building and agricultural development. Also to be issued on a periodic basis is a report showing samples of farm advertising. It is hoped that the circulation of the report will stimulate the exchange of ads among the electric operating companies.

Better Light-Better Sight Bureau

The Better Light-Better Sight Bureau is now preparing a program on the relationship between light and sight intended for use in junior and senior high school science classes. The materials will be similar to those which comprised the very popular elementary school program introduced by the Bureau in 1948. The new program, in addition to booklets, quiz sheets and leaflets, will contain a series of film strips. It is planned to have the program ready for distribution the early part of 1950.

The Bureau recently released a kodachrome color sound slide film, "Educating in a Truer Light." The more than 100 frames in the film stress the importance of good classroom lighting in the American schools. A six-page booklet bearing the same title was also prepared for use as a handout at showings of the film.

Industrial Heating Conference

The Industrial Power and Heating Committee of EEI in conjunction with the Westinghouse Electric Corporation will conduct an Industrial Heating Conference on March 13 through 17, 1950, at Summit Hotel near Uniontown, Pa. Westinghouse sales engineers, other heating equipment manufacturers' representatives and experienced power salesmen from electric power companies will give instructive talks on modern heating equipment and also present case histories describing actual operations of the equipment discussed. All topics will be discussed from the standpoint of benefit to the users so that those attending the Conference will be able to gather facts necessary to prepare successful selling presentations. Over 125 representatives of EEI member companies have indicated that they will attend the Conference.

The Historical Background of the American Way of Life

(*Continued from page* 40)

Do everything you can—the day is late and the hour is at hand. We're building for tomorrow and we've no one to blame but ourselves for the condition in which we find ourselves tomorrow. For men are what they're taught to be and that's all they can be.

I mentioned a moment ago that we had tried many different systems of communism in America—not on a large scale, but even on a small scale they would not work. I don't know how many of them there have been—there have been dozens of them I know. "New Harmony" by Robert Owen back in the 19th century and "Brook Farm" with Ralph Waldo Emerson and others who were interested in it. They didn't work—usually they were started by foreigners—mostly Germans—little communities of communism. Man did not own property—he lived together in a communistic system of living. They seemed to thrive pretty well—somewhat like the old plantation system of self-sufficiency.

During the Civil War and after the Civil War when the industrial revolution came, they could not compete with industry and business as it grew and developed and tools meant high wages, and high wages meant a higher standard of living. They went out of business. One by one they fell by the wayside. Maybe you saw in *"Life"* magazine some months ago of one that's still in operation. Way up in the North, in New England, I believe it's Massachusetts. There are just a few women left. It too is dying out.

Maybe there are others that you know about scattered over the country. In a very small way they still exist—Pennsylvania and Ohio were two states where many of them were tried. They were tried but they failed. They could not compete with industry. They were craftsmen. They made excellent articles with their hands but they couldn't compete because it took longer with their hands, their goods were higher, and thus they failed. Usually, it was some religious sentiment or ideal that kept them together and then finally that too died out. And so we tried many of them in America.

Yes, we've come a long way in 173 years. A long way because we have freedom of enterprise. Freedom for you and for me to choose what we want to do. And to choose what we want to do with a gain that is ours. To plan, to dream, to compete with others, according to our special skills or abilities. That's the American way of life. Let's hold it dear. Let's preach it unto others. Let's learn the facts, fill up the barrel, knock out the bottom and let 'er flow.

Incentives for Government Power

(*Continued from page* 46)

will readily conclude, I believe, that there is on foot a movement to cover the state of Missouri with government power. Your conclusions as to the incentives behind this movement are no doubt the same as mine—a desire to nationalize or socialize, or whatever you may call it, the electric power industry—the desire to manage and plan the welfare of the people—the desire to replace taxpaying private electric power companies with non-taxpaying, subsidized, self-perpetuating bureaucratic operated government power systems—a lust for power under the guise of "Welfare."

PERSONALS

EARLE J. MACHOLD has been elected president of the new Niagara Mohawk Power Corporation by the company's board of directors. H. EDMUND MACHOLD was elected vice president and chairman of the executive committee.

The directors of Niagara Mohawk were announced as follows: Frank C. Ash, president, Oswego Falls Corporation, Fulton, N. Y.; George F. Bennett, deputy treasurer, Harvard University, and partner, State Street Research and Management Co., Boston, Mass.;

MR. E. J. MACHOLD

George J. Brett, Syracuse, N. Y.; Edwin S. Bundy, Buffalo, N. Y.; Edwin Corning, vice president, Albany Associates, Inc., Albany, N. Y.; Frank B. Cuff, president, Alcoa Mining Company, New York City; Wesley J. Gilson, Albany, N. Y.; John L. Haley, Syracuse, N. Y.; William L. Hinds, chairman of the board, Crouse-Hinds Company, Syracuse, N. Y.; Harry S. Lewis, president, The J. P. Lewis Co., Beaver Falls, N. Y.; Earle J. Machold, Syracuse, N. Y.; H. Edmund Machold, Ellisburg, N. Y.; A. T. O'Neill, Buffalo, N. Y.; Thomas Brown Rudd, controller of Hamilton College, and member of the firm of Rudd, Penberthy & Nelson, Utica, N. Y.; Charles A. Tattersall, Syracuse, N. Y.; and Gustav F. Watters, Buffalo, N. Y.

The directors elected an executive committee consisting of H. Edmund Machold, chairman, Earle J. Machold, Edwin Corning, George F. Bennett, Edwin S. Bundy, A. T. O'Neill, and Thomas Brown Rudd.

Most of the directors and all of the officers of Niagara Mohawk have long been associated with the consolidated companies. The directors elected the following principal officers of the company, who have been serving with System companies at the places indicated.

Earle J. Machold, Syracuse, president; H. Edmund Machold, Ellisburg, vice president and chairman of the executive committee; George J. Brett, Syracuse, vice president and controller; Edwin S. Bundy, Buffalo, vice president and chief engineer; Lauman Martin, Syracuse, vice president and general counsel; Charles A. Tattersall, Syracuse, vice president and secretary; and vice presidents William L. Collins, Buffalo; Wesley J. Gilson, Albany; John L. Haley, Syracuse; John T. Kimball, Syracuse; Leland D. McCormac, Syracuse; A. T. O'Neill, Buffalo; and Gustav F. Watters, Buffalo. James H. Morrell, Syracuse, was elected treasurer.

Niagara Mohawk was formed through the consolidation of Buffalo Niagara Electric Corporation, Central New York Power Corporation, and New York Power and Light Corporation, the three principal operating subsidiaries of Niagara Hudson Power Corporation. Plans for the consolidation, and for the ultimate dissolution of Niagara Hudson as a holding company, were approved by the Securities and Exchange Commission, the Public Service Commission of New York, and the District Court of the United States for the Northern District of New York. When the holding company is dissolved, its name will be acquired by Niagara Mohawk.

The new organization with headquarters at Syracuse, N. Y., serves a population of 2.8 million, basically the same territory served by the Niagara Hudson System, which was organized in 1929 with 59 companies. System industrial, commercial, residential and farm electric customers last year required more than 11 billion kwhr of electric service, twice the amount used in 1930. Niagara Mohawk has 81 hydroelectric and six steam-electric generating stations located throughout upstate New York, and other resources that will bring the company's electric rated capacity to 2,170,000 kw. These stations are interconnected by over 7000 circuit-miles of transmission lines which feed power into 85,000 miles of distribution network.

WILLIAM WEBSTER, executive vice president of the New England Electric System, Boston, Mass., was nominated by President Truman on Feb. 8, 1950, to be chairman of the Research and Development Board of the U. S. Defense Department.

It is reported that among Mr. Webster's major responsibilities will be to fit the hydrogen bomb, production of which the President has recently authorized, into an integrated military research and development program, and to supervise the development of new military weapons based on the latest scientific information.

Mr. Webster had previously worked on similar government assignments dur-

MR. WEBSTER

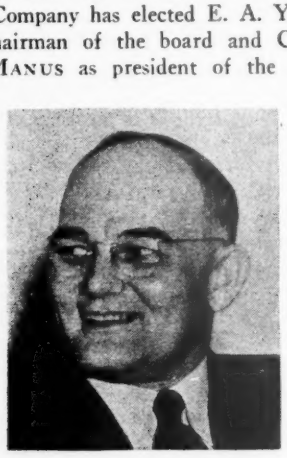
ing the war on the National Defense Research Committee; and after the war as chairman of the military liaison committee of the Atomic Energy Commission and deputy to the Secretary of Defense for atomic energy. More recently he has been also chairman of the atomic energy committee of the Research and Development Board and a director on the New England council of the Atomic Energy Commission.

Mr. Webster graduated from the U. S. Naval Academy in 1920 and later received a master's degree at M. I. T. He served as a lieutenant in the Navy Construction Corps for six years before entering the electric power field with the New England Power Association, Boston, in 1928. After serving as assistant manager of the Southern district, he later become executive vice president and then president of the Narragansett Electric Co., Providence, R. I. Shortly before his nomination to the chairmanship of the Research Board he was appointed executive vice president of the New England Electric System. (January, 1950, EEI BULLETIN.)

Mr. Webster will succeed Dr. Karl T. Compton, former president of the Massachusetts Institute of Technology,

as chairman of the Research and Development Board.

The board of directors of the Southern Company has elected E. A. YATES as chairman of the board and C. B. MCMANUS as president of the company. W. E. THORNTON was named assistant treasurer. Mr. McManus will continue to serve as president of the Georgia Power Co. in addition to filling the post of president of the Southern Company.



MR. MCMANUS

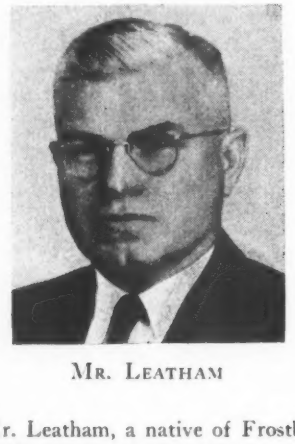
Closely associated with the development of the electrical industry in the southeast for the past 40 years, Mr. Yates did engineering work with the Pennsylvania Railroad before going with the Alabama Power Co. in 1911 as chief engineer to plan and supervise the construction of the big hydroelectric plants in that state. He later served as general manager of the Alabama Power Co. and of the Southeastern Power and Light Co. Shortly after the formation of the Commonwealth and Southern Corp., Mr. Yates was elected a vice president. He has been a member of the Georgia Power Co. board of directors since 1932 and a vice president since 1931. Also, he has been president of the Southern Company since its formation in 1947 and a member of the Advisory Committee of the EEI since 1944.

Mr. McManus, who graduated in 1916 from Auburn Polytechnic Institute with a degree in electrical engineering, joined the Georgia Power Co. in 1927 as superintendent of district operations and became assistant operating manager in 1929. He was named assistant to the president and was elected to the board of directors of the company in 1945. Soon after, he was made vice president and director of operations and served in that capacity until November, 1947, when he was elected president to succeed the late Preston S. Arkwright, Jr.

Mr. McManus has served on the EEI Board of Directors since 1948.

Mr. Thornton joined Georgia Power Co. as an accounting clerk in 1924 and was promoted to general statistician of the accounting department in 1937.

CHARLES H. LEATHAM has been named executive vice president by the board of directors of the Monongahela Power Co.



MR. LEATHAM

Mr. Leatham, a native of Frostburg, Md., has been in the electric utility field continuously since October, 1911, when he went to work with one of the subsidiary companies of the Potomac Edison Co. He later became connected with the operation of the Hagerstown & Frederick Railway Co.

After several months of special research for the West Penn Power Co. in 1933, Mr. Leatham was appointed early in 1934 as assistant general manager of Monongahela Power at Fairmont, W. Va. In 1936 he was named commercial manager, and in 1937 became a vice president with supervision principally over operations, engineering, sales and promotion.

With the retirement of two company vice presidents in the past year, Mr. Leatham has assumed management responsibility for a much broader field of company activities.

Mr. Leatham has been a member of the Commercial Division General Committee, EEI, since 1942. He has been chairman of the Farm Section of the Commercial Division and for many years has been active in the farm and rural affairs of the Commercial Division.

T. G. SEAL has been elected a vice president of Ebasco Services Inc.

Mr. Seal, whose experience in the utility field has covered the full range from lineman to executive, is a director of the company and general consultant for Ebasco's Middle South Utilities Group of Client Companies, including Arkansas Power & Light Co., Louisiana Power & Light Co., Mississippi Power & Light Co. and New Orleans Public Service Inc. He will continue his activities for this group.

In 1918, Mr. Seal was employed by the Municipal Plant at Marshfield, Mo., and in 1919 he joined the American Appraisal Co. From 1920 to 1926 he served with the Virginia Western Power Co. In 1927 he was employed by the General Engineering & Management Co., and in 1928 he joined Arkansas Missouri Power Co. as chief engineer and later became assistant vice president. During the period 1934-1937 he was with the Arkansas Department of Public Utilities as rate engineer and later as Commissioner.

Mr. Seal joined Louisiana Power & Light Co. in 1937 as director of rates and research. In 1940, he became associated with Ebasco Services Inc. as an assistant operating sponsor, becoming successively operating consultant, operating sponsor and general consultant.

W. E. PARROTT has been appointed a general consultant of Ebasco Services Inc. Mr. Parrott had been serving since 1941 as manager of the sales and marketing department before his new appointment. PAUL D. BROOKS has been appointed manager of the sales and marketing department to succeed Mr. Parrott.

Mr. Parrott started his utility career in 1919 when he joined Idaho Power Co. in the sales, accounting and operations field following completion of a student training course. He later handled construction projects and divisional operations before leaving the company in 1929 to join Compania Cubana De Electricidad, Havana, Cuba, as a sales consultant. In 1932 he became associated with Memphis Power & Light Co. as general sales manager, and in 1935 left that position to join Ebasco Services as sales sponsor for the Northwest Group of Client Companies.

Mr. Brooks graduated from the University of Tennessee with an electrical engineering degree in 1929. Following his graduation, he was employed by the Tennessee Public Service Co., Knoxville, Tenn., where he served in all divisions of the sales department, was an

operating division manager, and was made general sales manager in 1936. He also was a director of the company for three years.

Mr. Brooks joined the sales department of Ebasco Services in 1938 as Southwest sales sponsor. In January, 1944, he was appointed assistant manager of the sales and marketing department.

FRANCIS X. DOHERTY, a former officer of Buffalo Niagara Electric Corp., has been made vice president and general manager of The Niagara Falls Power Co. Mr. Doherty will make his headquarters at Niagara Falls and will assume the duties of Gustav F. Watters, who remains as vice president and director of The Niagara Falls Power Co., but moves to Buffalo where he becomes vice president of the newly formed Niagara Mohawk Power Corporation.

Mr. Doherty has been associated with western New York companies of the Niagara Hudson System for more than twenty years. He was born in Buffalo, June 27, 1903, and attended St. Joseph's Collegiate Institute and Canisius College. He entered the utility field in 1928 in the Stock Transfer Department and in 1933 became treasurer of the Bradford Electric Company, Bradford, Pa. (A company then associated with the predecessor companies of Buffalo Niagara Electric Corporation.) In 1938 he became district manager of the Avon District, a budget director of the western division companies in 1941 and was made an officer of Buffalo Niagara Electric Corporation in 1945.

President James V. Toner has announced the formation of a new Controller Organization in the Boston Edison Co. which includes all functions formerly a part of the Taxes, Reports, Regulatory and Related Matters, General Accounting and Budget Organization plus additional responsibilities.

Head of this new organization is ALBERT C. MCMENIMEN, who is designated as vice president and controller.

Two new departments are established in the Controller Organization. JOHN A. LANE is named superintendent and MELBOURNE W. HEMEON, assistant superintendent of General Office Services and Budgets. This department will include the General Office Services Division, HENRY A. THOMAS, JR., division head, formerly a part of the Procurement, Stores and Services Organization. A new Auditing, Procedures and Statistics Department with three divisions is established with BERTRAM L. ALLEY as superintendent.

The General Accounting Department will have a new Machine Accounting Division with ERNEST J. PERRIGO appointed division head. CHARLES V. GALE is named assistant division head of the Plant Accounting Division.

JAMES V. MACDONALD, publicity director of Boston Edison Company, has been appointed manager of the utility's advertising and promotion department. He joined the company in 1923. JOHN J. BARRY has been named assistant manager of the same department to direct a division on publicity and public relations. JAMES A. GALVIN has been named superintendent of the public relations department, supervising claims, adjustments, and district management. TIMOTHY J. REGAN is the new assistant superintendent of the public relations department, with direct supervision over district managers.

ALFRED W. SMITH has been named executive assistant to the executive vice president of NEES and ALBERT LEDDY, manager of Amesbury Electric Light Company. New distribution engineer for the Athol, Gardner, Wachusett, and Winchendon companies, with offices at Leominster, Mass., is EDWARD W. HITCHCOCK. GEORGE V. KENNEDY has been named assistant to the assistant district manager of the utilities centering at Leominster.

Retiring are HARRY B. STEARNS, lighting sales engineer for NEP Service Company; GUY E. NICKERSON, vice president and general manager of the Amesbury utility; and HARRY M. NELSON, hydraulic engineer for the service company. Other recent retirements include FRED N. MONTEITH, production superintendent of Haverhill Electric Company's Haverhill and Newburyport steam plants; HAROLD K. VAUGHAN, chief engineer of Gloucester Electric Company; W. S. MADDOCKS, power engineer, Narragansett Electric Company; GEORGE L. MUNROE, rural service engineer of Narragansett; HAROLD G. MORSE, assistant superintendent of production there; and FRANK M. LUCAS, superintendent of production.

Mr. Moseley joined the system in 1921 and was active in construction of the hydro development on the Deerfield River and at Bellows Falls on the Connecticut. Later he was transferred to the Boston headquarters and in 1948 became assistant hydraulic engineer.

Mr. Smith joined Lowell Electric Light Corp. in 1925 as a student engineer and has been engaged in financial work with system companies during most of his career, most recently as assistant treasurer for the central district companies at Worcester. Mr. Leddy, who entered system service in 1920, specialized in sales work at Providence, Attleboro and at Haverhill. Recently he has been merchandising assistant for the service company.

Mr. Stearns did test work for General Electric Company at Schenectady before joining the New England System, with which he has been in power sales for many years. Mr. Nickerson joined Amesbury in 1904 and became manager in 1927. Mr. Nelson had been hydraulic engineer of the service company since 1932. Mr. Monteith, who joined Haverhill Electric in 1913, had been chief engineer since 1920.

THEODORE O. MCQUISTON, manager of residential sales for Duquesne Light Company, has been appointed sales manager of Metropolitan Edison Co.

One of the country's better known utility sales executives, Mr. McQuiston gained national prominence as chairman of Edison Electric Institute's Electric Kitchen and Laundry Committee.

He joined Duquesne Light in 1925 as a contract clerk and began his sales career in 1931, when he became a lighting representative. He has since been sales research representative, sales promotion director, director of residential sales promotion, and residential sales manager.

Mr. McQuiston is secretary of the board of directors of the Electric League of Western Pennsylvania. Among other organizations in which he holds membership are the Illuminating Engineering Society, Pennsylvania Electric Association, the Pittsburgh Advertising Club, and Pittsburgh Housewares Club.

ROBERT W. HELLER has been appointed manager of residential sales of Duquesne Light Co., Pittsburgh, Pa. Mr. Heller succeeds T. O. McQuiston, who recently left Duquesne Light Co. to become sales manager of Metropolitan Edison Company, Reading, Pa.

Mr. Heller attended the University of Maryland, from which he received a bachelor of science degree in 1921

and an electrical engineering degree in 1926. From 1922 to 1924, Mr. Heller was employed by Westinghouse Electric Corp.

He entered the employ of Duquesne Light Co. in 1924, as a power sales engineer, and has since served as supervisor of industrial sales and director of industrial sales, the position he held at the time of his present appointment.

FRANK V. MAGALHAES has retired from his post as assistant to the chairman, Consolidated Edison Company of New York, Inc.

He had been associated with Consolidated Edison and its predecessor companies since 1898 when, on high school vacation, he worked as an assistant meter tester. Mr. Magalhaes will remain active in the public utility field, however, by continuing as secretary-treasurer of the Association of Edison Illuminating Companies.

In his long career, Mr. Magalhaes served on many utility industry committees concerned with instruments and measurements, code revision, underground systems, metering, service and safety. He served for some years as vice president and secretary of the United States National Committee, International Electrotechnical Commission, and was a member of the U. S. delegation to its Geneva conference in 1922.

After earning his degree in electrical engineering from Brooklyn Polytechnic Institute in 1907, Mr. Magalhaes joined The New York Edison Co. In succession he served as general foreman in the meter department and as superintendent of meter and test and was put in charge of the company's electric distribution and installation work in Manhattan.

He left New York Edison in 1928 to become vice president of the Hall Electric Heating Company, Philadelphia, and later was with General Electric Company. He returned to the Edison Company in 1934 where he successively served as assistant to vice president, commercial relations, and assistant to the president. Early last year, he became assistant to the chairman of the board.

EARL P. MOSELEY has been appointed hydraulic engineer of New England Power Service Company as one of a series of personnel changes being made by New England Electric System.

CONVENTIONS AND MEETINGS

1950

MARCH

13-16 National Electrical Manufacturers Association, Edgewater Beach Hotel, Chicago, Ill.
14 Public Information Program, Mid-Atlantic Regional Meeting, Washington, D. C.
16 Industrial Relations Committee, EEI, New York, N. Y.
29-31 Missouri Valley Electric Association, 21st Annual Engineering Conference, President Hotel, Kansas City, Mo.
30 Public Information Program, West North Central Regional Meeting, Minneapolis, Minn.

APRIL

4-6 16th EEI Annual Sales Conference, Edgewater Beach Hotel, Chicago, Ill.
4-7 National Association of Corrosion Engineers, Annual Conference and Exhibition, Jefferson Hotel, St. Louis, Mo.
10-14 American Society of Mechanical Engineers, Spring Meeting, Washington, D. C.
17-19 1950 Conference of Electric and Gas Utility Accountants, Brown Hotel, Louisville, Ky.
17-19 Meter and Service Committee, EEI, Netherlands-Plaza Hotel, Cincinnati, Ohio.
18-19 Indiana Electric Association, Young Men's Utility Conference, Indianapolis, Ind.
19-20 American Institute of Electrical Engineers, Power Conference, Wm. Penn Hotel, Pittsburgh, Pa.
20 Industrial Relations Committee, EEI, Netherlands-Plaza Hotel, Cincinnati, Ohio.
24-25 Pennsylvania Electric Association, Accounting Conference, Benjamin Franklin Hotel, Philadelphia, Pa.
24-26 Purchasing and Stores Committee, EEI, Schroeder Hotel, Milwaukee, Wis.
26-28 American Institute of Electrical Engineers, North East District Meeting, Providence, R. I.
26-28 Northwest Electric Light & Power Association, Engineering & Operation Section, Vancouver Hotel, Vancouver, B. C.
28 Public Information Program, National Meeting, Chicago, Ill.

MAY

1-2 Prime Movers Committee, EEI, Edgewater Beach Hotel, Chicago, Ill.
1-2 Hydraulic Power Committee, EEI, Edgewater Beach Hotel, Chicago, Ill.
1-2 Accident Prevention Committee, EEI, Edgewater Beach Hotel, Chicago, Ill.
1-4 38th Annual Meeting, Chamber of Commerce of the USA, Washington, D. C.
2-3 Electrical Equipment Committee, EEI, Edgewater Beach Hotel, Chicago, Ill.
3 Missouri Association of Public Utilities, Joplin, Mo.
4-5 Oklahoma Utilities Association, Biltmore Hotel, Oklahoma City, Okla.
11-12 American Institute of Electrical Engineers, Great Lakes District Meeting, Jackson, Mich.
15-18 54th Annual Meeting, National Fire Protection Association, Haddon Hall, Atlantic City, N. J.
16 Missouri Valley Electric Association, Annual Meeting, President Hotel, Kansas City, Mo.
23-26 National District Heating Association, Grove Park Inn, Asheville, N. C.
25-26 Transmission and Distribution Committee, EEI, Cosmopolitan Hotel, Denver, Colo.
31-June 2 Pacific Coast Electrical Association, Inc., Reno, Nevada.

JUNE

5-7 EDISON ELECTRIC INSTITUTE, Annual Meeting, Atlantic City, N. J.
12-16 National Association of Electrical Distributors, Annual Convention, Atlantic City, N. J.
12-16 American Institute of Electrical Engineers, Summer Meeting, Pasadena. Calif.
15-19 Canadian Electrical Association, 60th Annual Convention, Manoir Richelieu, Murray Bay, Que., Canada.
19-21 American Society of Heating & Ventilating Engineers, Semi-annual Meeting, Muskoka Lakes, Ontario, Can.
19-23 American Society of Mechanical Engineers, Semi-Annual Meeting, St. Louis, Mo.
26-30 American Society for Testing Materials, Atlantic City, N. J.

AUGUST

21-25 Illuminating Engineering Society National Technical Conference, Hotel Huntington, Pasadena, Calif.

SEPTEMBER

25-27 American Trade Association Executives Annual Meeting, Somerset Hotel, Boston, Mass.
27-29 Canadian Electrical Manufacturers Association Annual Meeting, General Brock Hotel, Niagara Falls, Ontario, Can.

OCTOBER

2-6 American Gas Association Annual Convention, Atlantic City, N. J.
3-5 American Institute of Electrical Engineers, Publicity Committee Meeting, District No. 2, Baltimore, Md.
11-14 International Association of Electrical Leagues, 15th Annual Conference, Copley Plaza Hotel, Boston, Mass.
16-20 38th National Safety Congress, Chicago, Ill.

NOVEMBER

13-16 National Electrical Manufacturers Association, Chalfonte-Haddon Hall, Atlantic City, N. J.
27-29 American Standards Association Annual Meeting, Waldorf-Astoria Hotel, New York, N. Y.

EDISON ELECTRIC INSTITUTE OFFICERS AND COMMITTEES

OFFICERS

ELMER L. LINDSETH, *President*.....The Cleveland Electric Illuminating Co., Cleveland, Ohio
L. V. SUTTON, *Vice-President*.....Carolina Power & Light Co., Raleigh, N. C.
H. S. BENNION, *Vice-President and Managing Director*...420 Lexington Avenue, New York, N. Y.
K. B. CRUMB, *Treasurer*.....American Gas & Electric Service Corp., New York N. Y.
MAE B. WOODS, *Secretary*.....420 Lexington Avenue, New York, N. Y.

BOARD OF DIRECTORS

(Terms Expiring 1950)

E. R. ACKER.....Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.
AUSTIN D. BARNEY.....The Hartford Electric Light Co., Hartford, Conn.
REX I. BROWN.....Mississippi Power & Light Co., Jackson, Miss.
E. W. DOEBLER.....Long Island Lighting Co., Mineola, N. Y.
L. M. KLAUBER.....San Diego Gas & Electric Co., San Diego, Calif.
J. A. LONGLEY.....Central Illinois Light Co., Peoria, Ill.
H. B. MUNSELL.....Kansas City Power & Light Co., Kansas City, Mo.
R. S. NELSON.....Gulf States Utilities Co., Beaumont, Texas
C. E. OAKES.....Pennsylvania Power & Light Co., Allentown, Pa.
B. F. PICKARD.....Interstate Power Co., Dubuque, Iowa
McGREGOR SMITH.....Florida Power & Light Co., Miami, Fla.
A. C. SPURR.....Monongahela Power Co., Fairmont, W. Va.
L. V. SUTTON.....Carolina Power & Light Co., Raleigh, N. C.
O. TITUS.....Metropolitan Edison Co., Reading, Pa.

(Terms Expiring 1951)

J. T. BARRON.....Public Service Electric and Gas Co., Newark, N. J.
J. M. BARRY.....Alabama Power Co., Birmingham, Ala.
GEORGE M. GADSBY.....Utah Power and Light Co., Salt Lake City, Utah
D. E. KARN.....Consumers Power Co., Jackson, Mich.
J. E. LOISEAU.....Public Service Co. of Colorado, Denver, Colo.
PAUL B. McKEE.....Pacific Power and Light Co., Portland, Ore.
C. B. McMANUS.....Georgia Power Co., Atlanta, Ga.
S. C. McMEEKIN.....South Carolina Electric & Gas Co., Columbia, S. C.
GROVER C. NEFF.....Wisconsin Power and Light Co., Madison, Wis.
P. H. POWERS.....West Penn Power Co., Pittsburgh, Pa.
HAROLD QUINTON.....Southern California Edison Co., Los Angeles, Calif.
J. B. THOMAS.....Texas Electric Service Co., Ft. Worth, Texas
JOHN T. WARD.....Boston Edison Co., Boston, Mass.
W. F. WYMAN.....Central Maine Power Co., Augusta, Maine

(Terms Expiring 1952)

W. C. BECKJORD.....The Cincinnati Gas & Electric Co., Cincinnati, Ohio
H. B. BRYANS.....Philadelphia Electric Co., Philadelphia, Pa.
H. C. CUMMINS.....Northern States Power Co., Minneapolis, Minn.
CHAS. B. DELAFIELD.....Consolidated Edison Co. of New York, Inc., New York, N. Y.
W. G. B. EULER.....Pacific Gas and Electric Co., San Francisco, Calif.
F. C. KELLOGG.....Pioneer Service and Engineering Co., Chicago, Ill.
C. E. KOHLHEPP.....Wisconsin Public Service Corp., Milwaukee, Wis.
P. H. McCANCE.....Duquesne Light Co., Pittsburgh, Pa.
R. E. MOODY.....Union Electric Company of Missouri, St. Louis, Mo.
IRWIN L. MOORE.....New England Electric System, Boston, Mass.
A. T. O'NEILL.....Buffalo Niagara Electric Corp., Buffalo, N. Y.
HAROLD TURNER.....The Ohio Power Co., Canton, Ohio
G. W. VAN DERZEE.....Wisconsin Electric Power Co., Milwaukee, Wis.
FRANK M. WILKES.....Southwestern Gas & Electric Co., Shreveport, La.

Executive Committee

The Executive Committee consists of the following members of the Board of Directors: Austin D. Barney, W. C. Beckjord, H. B. Bryans, Chas. B. Delafield, P. H. McCance, Chas. E. Oakes, P. H. Powers, O. Titus, J. T. Ward.

EDISON ELECTRIC INSTITUTE OFFICERS AND COMMITTEES

(Continued)

ADVISORY COMMITTEE 1949-1950

D. C. BARNES.....Virginia Electric & Power Co., Charlottesville, Va.
E. F. BARRETT..Long Island Lighting Co., Mineola, N. Y.
S. R. BERTRON.....Houston Lighting & Power Co., Houston, Tex.
J. B. BLACK.....Pacific Gas and Electric Co., San Francisco, Calif.
GEORGE H. BLAKE....Public Service Electric & Gas Co., Newark, N. J.
B. F. BRAHENEY.....Northern States Power Co., Minneapolis, Minn.
PRENTISS BROWN..The Detroit Edison, Co., Detroit, Mich.
CURTIS E. CALDER.....Electric Bond & Share Co., New York, N. Y.
J. W. CARPENTER..Texas Power & Light Co., Dallas, Tex.
H. P. LIVERSIDGE.....,.....Philadelphia Electric Co. Philadelphia, Pa.
EARLE J. MACHOLD.....Niagara Mohawk Power Corp., Syracuse, N. Y.
T. W. MARTIN...Alabama Power Co., Birmingham, Ala.
J. W. MCAFEE.....Union Electric Co. of Miss... St. Louis, M...
W. C. MULLENDORE....Southern California Edison C... Los Angeles, Ca...
A. B. PATERSON.....New Orleans Public Service I... New Orleans, ...
W. H. SAMMIS.....Ohio Edison Co., Akron, O...
WILLIAM SCHMIDT, JR., Consolidated Gas Electric Light & Power C... Baltimore, M...
PHILIP SPORN...American Gas and Electric Service Co... New York, N...
A. H. KEHOE....Consolidated Edison Co. of N. Y. I... New York, N...
E. S. THOMPSON.....The West Penn Electric C... New York, N...
J. V. TONER.....Boston Edison Co., Boston, M...
J. R. WHITING....Consumers Power Co., Jackson, M...
E. A. YATES.....The Southern Co., New York, N...

CHAIRMEN OF EDISON ELECTRIC INSTITUTE COMMITTEES (1949-1950)

ACCOUNTING

Accounting Division Executive, W. H. ZIMMER.....The Cincinnati Gas & Electric Co., Cincinnati, O...
Application of Accounting Principles, H. H. SCAFF.....Ebasco Services Inc., New York, N...
Customer Activities, J. D. ELLIOTT.....The Detroit Edison Co. Detroit, M...
Depreciation Accounting, A. E. BAUHAN.....Public Service Electric & Gas Co., Newark, N...
General Accounting, H. S. KING.....Commonwealth Services Inc., New York, N...
Plant Accounting and Records, F. E. DRAPALIK.....Union Electric Co. of Missouri, St. Louis, ...
Taxation, C. J. TRUDEAU.....Wisconsin Electric Power Co., Milwaukee, W...

COMMERCIAL

Commercial Division General, HARRY RESTOFSKI.....West Penn Power Co., Pittsburgh, ...
Sales Personnel and Training, E. O. GEORGE.....The Detroit Edison Co., Detroit, M...
Wiring and Specifications, F. E. DAVIS.....Commonwealth Services Inc., Jackson, M...
Commercial Sales Section, C. A. STEVENS.....Public Service Electric & Gas Co., Newark, N...
Farm Section, J. C. CAHILL.....The Detroit Edison Co., Detroit, M...
Industrial Power and Heating Section, R. G. ELY.....Public Service Electric & Gas Co., Newark, N...
Residential Section, H. A. STROUD.....Monongahela Power Co., Fairmont, W...

ENGINEERING

Engineering Division General, E. W. DILLARD.....New England Power Service Co., Boston, M...
Electrical Equipment, B. VAN NESS, JR.....Pennsylvania Water & Power Co., Baltimore, ...
Hydraulic Power, G. J. VENCILL.....Union Electric Co. of Missouri, St. Louis, ...
Meter and Service, H. A. BROWN.....Rochester Gas & Electric Corp., Rochester, N...
Prime Movers, F. P. FAIRCHILD.....Public Service Electric & Gas Co., Newark, N...
Transmission and Distribution, J. E. MCCORMACK.....Consolidated Edison Co. of New York, Inc., New York, N...

GENERAL

Accident Prevention, W. T. ROGERS.....Ebasco Services Inc., New York, N...
Codes and Standards, J. T. BARRON.....Public Service Electric & Gas Co., Newark, N...
Electric Power Survey, WALKER L. CISLER.....The Detroit Edison Co., Detroit, M...
Financing and Investor Relations, C. E. OAKES.....Pennsylvania Power & Light Co., Allentown, ...
Industrial Relations, S. F. LEAHY.....The Detroit Edison Co., Detroit, M...
Insurance, I. M. CARPENTER.....Ebasco Services Inc., New York, N...
Membership, E. S. THOMPSON.....The West Penn Electric Co., Inc., New York, N...
Prize Awards, G. E. WHITWELL.....Philadelphia Electric Co., Philadelphia, ...
Purchasing and Stores, R. P. SNOW.....The Cleveland Electric Illuminating Co., Cleveland, ...
Rate Research, S. W. ANDREWS.....American Gas & Electric Service Corp., New York, N...
Rural and Urban Development, GEORGE R. KEEGAN.....Western Massachusetts Electric Co., Springfield, M...
Statistical, O. E. SMITH.....Consolidated Gas Electric Light & Power Co., Baltimore, ...
Transportation, LINN EDSALL.....Philadelphia Electric Co., Philadelphia, ...

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